IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION

MIRROR WORLDS, LLC   *   Civil Docket No.
                            *
                            *   6:08-CV-88
VS.   *   Tyler, Texas
                            *
                            *   September 30, 2010
APPLE, INC., ET AL   *   9:00 A.M.

TRANSCRIPT OF JURY TRIAL
MORNING SESSION
BEFORE THE HONORABLE LEONARD DAVIS
UNITED STATES DISTRICT JUDGE

APPEARANCES:

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(Proceedings recorded by mechanical stenography,
transcript produced on CAT system.)

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 2                    COURT SECURITY OFFICER: All rise.

 3                    (Jury in.)

 4                    THE COURT:  Please be seated.

 5                    All right.  Good morning, Ladies and

 6  Gentlemen of the Jury.  Welcome back.

 7                    This is our last day of testimony.  We

 8  should finish, if everything goes according to plan.

 9                    So with that, we will proceed,

10  Mr. Randall, with your next witness.

11                    MR. RANDALL:  Your Honor, Apple's next

12  witness is Mr. Nitin Ganatra.

13                    THE COURT:  Okay.

14                    MR. CARROLL:  Your Honor, could we have

15  our time before we get to cranking this morning?

16                    THE COURT:  I thought I had given that to

17  y'all yesterday.

18                    MR. CARROLL:  I don't know if we --

19                    THE COURT:  All right.  It's Plaintiff

20  has used 9 hours and 50 minutes, and Defendant has used

21  just short of 8 hours -- 7 hours and 56 minutes.

22                    MR. CARROLL:  50 or 9/15.

23                    THE COURT:  9/50.

24                    COURTROOM DEPUTY:  Please raise your

25  right hand to be sworn.
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2   NITIN GANATRA, DEFENDANTS' WITNESS, SWORN

3   DIRECT EXAMINATION

4   BY MR. RANDALL:

5   Q   Can you tell us your name for the record,

6   please.

7   A   My name is Nitin Ganatra.

8   Q   Where do you live?

9   A   San Jose, California.

10   Q   And what is your current occupation?

11   A   I'm the Director of Engineering on the iPhone

12 operating system at Apple.

13   Q   Can you provide some of your background,

14 including when you started at Apple?

15   A   I started at Apple in January -- in April of

16 1993. I -- I initially started in -- in Developer

17 Technical Support and moved into Engineering two years

18 later -- Software Engineering two years later.

19   Q   As the manager of iPhone applications team, do

20 you have knowledge of the implementation of Coverflow in

21 iPhone and iPod Touch?

22   A   Yes, I do.

23   Q   Do you have knowledge of the implementation of

24 Coverflow in the iPod Touch, iPod Nano, and iPod

25 Classic?

2   Q   And I want to ask you some questions. This --

3 this -- one of the allegations by Plaintiff is that

4 Apple has this receding foreshortened stack.

5   And I want to ask you, are you knowledgeable

6 about the source code for Coverflow in these products

7 that we just mentioned?

8   A   Yes, I am.

9   Q   So you know how Coverflow works kind of under

10 the hood, so to speak, in these products?

11   A   That's correct.

12   Q   All right.

13   A   Yes, I do.

14   Q   Are you aware that Plaintiff has accused

15 Coverflow in Apple's iPhone, iPod Touch, and other iPods

16 of infringing its patents?

17   A   Yes.

18   MR. RANDALL: Can you pull up NG1,

19 please?

20   Q   (By Mr. Randall) All right. What does this

21 slide reflect, sir?

22   A   So this slide shows an iPhone tipped on its

23 side, and in -- in view on the screen is the Coverflow

24 user interface.

25   In addition, there are two parallel lines, two

2   line along the bottom edge of the albums.

3   Q   Do -- the album covers that are displayed here

4   in Coverflow, do they get shorter as they get closer to

5   the sides of the view?

6   A   No, they do not. And -- and you can see that

7   by looking on the -- the left side of the screen. It's

8   easiest to see where the -- the white tips of the albums

9   are sticking up over the red line, the same distance

10 that the tips of the albums that are closer to the

11 center are sticking up.

12   Q   Okay.

13   A   I'm sorry. That's the left edge. I think I

14 said right.

15   Q   Now, do the album covers that are displayed

16 here in cover -- Coverflow, do they get further away

17 from the screen as they get closer to the sides of the

18 display?

19   A   No, they do not.

20   Q   How do you know that?

21   A   I know that from looking at the source code.

22   Q   All right. You've reviewed the source code

23 and confirmed that?

24   A   Yes, I have.

25   Q   Is -- the position of the album cover in

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 2       A    No, it does not.

 3                 MR. RANDALL:  Can you pull up DX1017 at

 4   Page 620 and 621?

 5                 Can you go to Page 620 and go down to the

 6   bottom at Line 1529?

 7       Q    (By Mr. Randall) Do you recognize this as

 8   source code, sir --

 9       A    Yes.

10       Q    -- for those products?

11       A    Yes, I do.

12       Q    And I want to direct your attention to

13   Line 1529.

14                 What does that do?

15       A    So that is the declaration for a -- a

16   routine -- for a piece of code that -- that sets the --

17   it sets the Coverflow view so that you're viewing the

18   album that is at a particular index.  That's indicated

19   by the number.

20                 So you'll see the words, set new selected

21   index, and right after that, you see new index, which is

22   a number.  And that number indicates which album within

23   the series of albums should be the one that's in the

24   center of the display.

25       Q    All right.  And is this source code among the
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2 that you've reached that you've already testified to?

3   A   Yes, it is.

4   Q   All right.

5   MR. RANDALL: Let's go to the next page.

6   And, Diane, if you can highlight these

7 lines of code, 1559, 1563, 1557, and 1590.

8   If you could span that slightly so we can

9 at least have a chance of seeing it, including -- okay.

10   Q   (By Mr. Randall) So I realize that you

11 reviewed more code than this, but I'm asking you

12 specifically with respect to this code, what does this

13 code show?

14   A   So what this code shows is the -- you'll

15 notice that there is a -- a dot Z right after the -- the

16 word covers. And then there are the open brackets with

17 an I. There's a dot Z there, and then after the equals,

18 there's a covers, open bracket, a gold Z. The most

19 important part of both of those is that -- is that Z is

20 the -- the axis that's being set in this -- in that

21 particular line.

22   And that Z axis is always set to 0. That's --

23 it's always set to -- in 1559, it's always set to 0.

24 It's -- the same thing happens in Line 1567. It's

25 always set to 0. The Z axis is set.

2 being set for the selected cover, but there's -- it's a

3 constant value that's used for -- to assign the covers

4 to that -- to assign the Z axis to those covers.

5   Q   Okay. Now, with respect to the positioning

6 and sizing of the album covers in Coverflow that you

7 just testified to, is Coverflow the same for iPhone,

8 iPod Touch, and other iPods?

9   A   Yes, it is.

10   Q   All right.

11   MR. RANDALL: Go back to NG1, please.

12   Q   (By Mr. Randall) So the code that we looked at

13 and the code you also looked at previously, in addition

14 to those specific lines we just went through, what does

15 that tell you with respect to the positioning of these

16 album covers?

17   A   What that -- what that tells me is that the --

18 the albums are all on the same Z axis. They're all on

19 the same plane, and -- but specifically by plane, what I

20 mean -- the easiest way to think of -- of a plane is to

21 think of it as a -- as a flat, smooth -- completely

22 smooth wall.

23   And it's not necessarily drawn, but it is, for

24 the purposes of geometry, a -- a flat, smooth wall. And

25 by -- by setting those values of those -- of those

2   all attached to the wall in the same -- in the same

3   position. So they're all attached to the same -- in the

4   same way to this flat wall.

5   And because of that, what that means is that

6   the albums do not recede into the distance as you move

7   away from the center. They're always on the same --

8   they're always on the same axis. They're on that same

9   plane, that same wall, and so, therefore, they don't

10 recede.

11   Q   Okay. And do -- the iPhone, iPod Touch, and

12 other iPods, do they utilize a cursor or pointer?

13   A   No, they do not.

14   Q   Do they show a glance view as required --

15   MR. RANDALL: Strike that.

16   Q   (By Mr. Randall) Do they show a glance view?

17   A   No, it does not.

18   Q   And how does the user interact with the

19 devices, then, if they don't use a cursor or pointer

20 that moves around?

21   A   So instead of using a cursor or pointer or

22 something like that, it's -- you use direct

23 manipulation. You use your finger, and you're actually

24 touching the screen.

25   So where a cursor or a pointer is -- is -- is

2 normally sets alongside of a computer, and the cursor

3 is -- is the little arrow that moves around.

4   There's no such thing on the iPhone. It's

5 just -- you just use your finger. It's a very direct

6 form of -- of changing your view.

7   Q   Okay.

8   MR. RANDALL: Can you play Clip 51A,

9 please? It's DX51A.

10   (Video clip playing.)

11   (Video stopped.)

12   Q   (By Mr. Randall) All right. And what does the

13 video we just saw, DX51A, demonstrate?

14   A   So what that showed was an iPhone, again

15 tipped on its side, which brought up the Coverflow view.

16   And in order to change what album you were

17 viewing on that -- on that -- that shelf of albums, you

18 use your finger to directly change what -- what albums

19 are -- what album is actually in the center.

20   And you could see that by swiping your finger

21 in either direction, the albums swipe back and forth to

22 follow your finger.

23   Q   Now, does the -- do -- any of those products

24 that we just mentioned, do they ever display a glance

25 view when the Coverflow changes?

 2   Q   Before this case, Mr. Ganatra, were you ever

 3 aware of a product called Scopeware or Lifestreams?

 4   A   No, I was not.

 5   Q   Before this case, were you aware of

 6 Dr. Gelernter?

 7   A   No, I was not.

 8   Q   Before this case, were you aware of Mirror

 9 Worlds Technologies?

10   A   No.

11   Q   Before this case, were you aware of any of

12 Mirror Worlds' patents?

13   A   No, I was not.

14   MR. RANDALL: No further questions, Your

15 Honor.

16   THE COURT: All right. Cross-exam.

17   CROSS-EXAMINATION

18 BY MR. STEIN:

19   Q   Good morning, Mr. Ganatra.

20   A   Good morning.

21   Q   The term, receding foreshortened stack, isn't

22 a technical term in computers, is it?

23   A   Not to my knowledge.

24   Q   It's a visual effect, correct?

25   A   It's -- it's hard for me to say. I mean,

2   some items.

3   Q   It's a description of something being

4   displayed, right?

5   A   Yes.

6   Q   And the jury here can assess that effect by

7   looking at the image being displayed, right?

8   A   Yes.

9   Q   There are -- there's -- there's software on

10 the iPhone that doesn't cause images to be displayed,

11 correct?

12   A   I'm -- I'm sorry. Can --

13   Q   There's other software on the -- on the iPhone

14 that doesn't cause an image to be displayed, correct?

15   A   There is -- I -- I apologize. You're saying

16 there is other software --

17   Q   Let me restate it.

18   A   Sorry.

19   Q   There's some software that causes that image

20 to be displayed, right?

21   A   There is other software that causes the --

22   Q   Let's start again. Sorry.

23   You pointed to some software that displayed

24 the -- that was displaying the image of Coverflow on the

25 iPhone, right?

2   Q   And that -- that software causes an image to

3   be displayed, right?

4   A   Sure. Yes.

5   Q   And there's other software on the iPhone that

6   performs other functions on the iPhone, which would not

7   cause an image to be displayed, right?

8   A   Yes. There is lot -- there is quite a bit of

9   software that runs on the iPhone, yes.

10   Q   And in order to understand really what that

11 software is doing, you need to look at -- to understand

12 the functionality of that software, you need to look at

13 the source code, correct?

14   A   Yes.

15   Q   But here we're looking at a visual effect,

16 which you can determine by looking at the display on the

17 screen, right?

18   A   That's correct. We also did look at source

19 code.

20   Q   Right.

21   Again, in this particular instance, the jury

22 can assess for itself whether the image on the screen is

23 a receding foreshortened stack without looking at that

24 source code, right?

25   A   I -- I believe they can.

2 saw, the center -- the image in the center is larger

3 than the images to the sides of the center, correct?

4   A   The -- the one image that is in the center

5 is -- is larger than all the other images, but the other

6 images are all the same size.

7   Q   All right. And as you move out from the

8 center to the side, the angle of the top edge is

9 decreasing, correct?

10   A   The angle of the top edge?

11   Q   Of each -- of each image in the stack is

12 becoming shallower, correct?

13   A   It would be hard for me to say. We would have

14 to go look at the source code to -- to confirm that.

15   Q   But if you can see it with your eyes, then the

16 answer would be -- if the jury looks at it and sees it

17 with their own eyes --

18   A   Uh-huh.

19   Q   -- then they can trust their eyes. If it's

20 getting shallower, then they don't need to look at the

21 source code to figure out that it's getting shallower,

22 right?

23   A   That's true. That's true.

24   Q   Now, you used the term glance view a moment

25 ago. Glance view is a term that's in the claims of the

2 here.

3   Are you aware of that?

4   A   I am, yes.

5   Q   Have you studied those patents?

6   A   No, I haven't studied them. No.

7   Q   Do you know what the Court's -- the Court in

8 this case had construed those terms.

9   Do you know what the Court's construction of

10 the term glance view is?

11   A   I -- I believe that the -- the -- not -- not

12 exactly. I mean, I could -- I could guess, but probably

13 not exactly.

14   Q   Thank you.

15   THE COURT: Redirect?

16   MR. RANDALL: No questions.

17   THE COURT: All right. You may step

18 down.

19   All right. Who will be your next

20 witness?

21   MR. PLATT: Apple calls John Hornkvist.

22   THE COURT: John who?

23   MR. SOOBERT: Hornkvist,

24 H-O-R-N-K-V-I-S-T.

25   COURTROOM DEPUTY: Please raise your

       2   (Witness sworn.)

       3   JOHN MARTIN HORNKVIST, DEFENDANTS' WITNESS, SWORN

       4   DIRECT EXAMINATION

       5 BY MR. SOOBERT:

       6   Q   Good morning, Mr. Hornkvist.

       7   A   Good morning.

       8   Q   Could you state your name for the record,

       9 please.

      10   A   John Martin Hornkvist.

      11   Q   And where are you from?

      12   A   I'm from Gothenburg, Sweden.

      13   Q   And where do you live now?

      14   A   At Cupertino, California.

      15   Q   And can you just briefly describe your

      16 educational background?

      17   A   I have a master's of science in computer

      18 engineering from Chalmers University of Technology.

      19   Q   And what -- are you working at Apple now? Are

      20 you employed?

      21   A   I'm an employee of Apple.

      22   Q   When did you start working at Apple?

      23   A   I started in 2003, in August.

      24   Q   Are you familiar with Spotlight?

      25   A   I am. I am the manager Of the Spotlight Team.

2 Performance Team and the Spotlight Team.

3   Q   Can you pull the microphone down a little bit

4 and speak into it so we can hear you? Thank you.

5   And what do you do in that role of

6 responsibilities?

7   A   I write a lot of the Spotlight code. I lead

8 the other engineers that are working on Spotlight in

9 their jobs. I deal with other teams, coordinate and

10 prioritize work.

11   Q   Okay. And so you said you write code, and

12 you're familiar with the code?

13   A   I am very familiar, yes. Before I was manager

14 of the team, I was technical lead, which meant that I

15 was in charge of basically most of the technical

16 decisions about how the system works.

17   Q   All right. And so the code defines how

18 Spotlight operates?

19   A   The code is how Spotlight works.

20   Q   All right.

21   MR. SOOBERT: Diane, can you bring up

22 JH1?

23   Q   (By Mr. Soobert) Mr. Hornkvist, can you just

24 briefly tell me what's shown here?

25   A   Sure. So we are seeing a high-level

 2 hierarchical folder system, which is just part of Mac OS

 3 10. And we have the Spotlight Store, which is a content

 4 index and a Metadata Store. And then we have a search

 5 interface.

 6   Q   Okay. So Apple uses a hierarchical file and

 7 folder system that's shown there in the upper left-hand

 8 corner?

 9   A   Yeah, we do.

10   Q   Okay. How long have they used that?

11   A   Since the Macintosh first came out, probably

12 1984.

13   Q   For decades?

14   A   For decades, yes.

15   Q   Okay. And the Spotlight Store that's at issue

16 in this case is -- is on the bottom part of that screen,

17 right?

18   A   Right. Yes. That's the content index in the

19 Metadata Store.

20   Q   Okay. And if I wanted to sort of look under

21 the hood, so to speak, of the computer and understand

22 how it operates, I'd like at the source code, right?

23   A   Yes, absolutely.

24   Q   Okay. Before we -- before we do that, let's

25 talk just briefly about the architecture of the

2 with.

3   Can you just describe what's -- what's in that

4 store?

5   A   Yeah. So the -- the Spotlight Store contains

6 metadata, that is, data about files, things like the

7 author of a document and other sort of descriptive data

8 about the things that you have in your system.

9   And then the content index is a way of -- by

10 terms in your documents, by words in your document,

11 locating them.

12   So if you -- you were looking for, you know,

13 your tax return, or hopefully in that document you have

14 the word tax return -- or the words tax return, so you

15 give that to Spotlight, and we locate your tax return

16 for you.

17   Q   Okay. Now, does Spotlight Store any documents

18 itself?

19   A   No. Spotlight is not responsible for storing

20 documents. The file system does that.

21   Q   Okay. So even though it says Spotlight Store,

22 that's -- it's not a place where documents are stored?

23   A   No, no. No, it's not. It's -- we store data

24 about documents. We don't store documents.

25   Q   And that data is reflected in one, the content

 2   A   It's reflected in the Metadata Store. That's

 3   where we keep it, and we -- we index some of that

 4   metadata in the content index.

 5   Q   Okay.

 6   MR. SOOBERT: Diane, can we go to JH2,

 7   please?

 8   Q   (By Mr. Soobert) Okay. Could you just briefly

 9   tell us what this shows?

10   A   Yes. So what shows here is, we have a system

11   that has two separate hard drives. One -- so Folder

12   System 1 is the built-in hard drive in your Macintosh.

13   And Folder System 2 is an external drive

14   you've connected.

15   And what we see is that they're actually two

16   separate Spotlight Stores, one for the integrated drive

17   and one for the external drive.

18   And then the search interface will coalesce

19   and show the results together.

20   Q   Okay. So in this example, one -- one of those

21   Spotlight Stores would have some of the documents

22   indexed that would be accessible by the system, and the

23   other Spotlight Store would have whatever documents

24   could be accessible through a separate volume drive on

25   the computer; is that correct?

    2   the document, as I said before. We have the data about

    3   the document.

    4   Q   Right.

    5   Okay. And this slide -- in this next slide in

    6   this series of slides we're looking at, are these

    7   accurate representations of how Spotlight operates?

    8   A   These are accurate at a very high level.

    9   Q   Okay. And we'll go drill down in just a

   10   second.

   11   And these are consistent, the architecture and

   12   the operation we're discussing today, with how Spotlight

   13   is actually reflected and runs in the code, right?

   14   A   That is correct.

   15   Q   Okay.

   16   MR. SOOBERT: Let's go to JH3.

   17   Q   (By Mr. Soobert) Okay. Now, this is just

   18   highlighting the Spotlight Store, and we've seen that

   19   there's -- there's the index and the Metadata Store?

   20   A   Correct.

   21   Q   Okay.

   22   MR. SOOBERT: Let's go to JH4.

   23   Q   (By Mr. Soobert) Now, so I want to focus on

   24   the aspect of the Spotlight Store right now on the

   25   Metadata Store in this so-called database.

2   next slide, 5.

3   Q   (By Mr. Soobert) And describe here for me, if

4   you would, what is being shown.

5   A   Okay. So what we see here is, we have a

6   database. In that database, we have pages. The data is

7   separated onto pages. So -- and on each page objects

8   are -- we have database objects, which represent -- each

9   represents a file in your file system.

10   And Object ID 1 here is a file called

11 Football.pdf, and that's on Page 1. Then you see on

12 Page 2 we're starting with OB number 5. Page 3 happens

13 to start with Object ID number 9.

14   And as you can tell, we have some metadata on

15 here. We have the size; we have the date. And you can

16 also see that there's no -- the order is simply by

17 object ID here.

18   Q   Okay. Does this demonstrate that the -- the

19 Spotlight Metadata Store is organized by object ID and

20 not time?

21   A   Yes, it does.

22   Q   Okay. And you understand Mirror Worlds is

23 contending that the Spotlight Metadata Store maintains

24 documents in a chronological order?

25   A   That's not correct.

```
 2      A    Because it's ordered by the object identifier,

 3  which is a number the file system assigns to the files,

 4  and that number increases each time a file is added, but

 5  it has nothing to do with the date on the files.

 6           And once you have used up all available

 7  numbers, it starts over from the bottom of the number.

 8  It starts over at 1 and tries to look for the next

 9  unused file ID.

10      Q    Okay.  So Apple, through the Spotlight Store,

11  tracks it by object ID --

12      A    By object ID.

13      Q    -- which is not tied to time?

14      A    That's correct.  It's not tied to time.

15      Q    Okay.  And then -- how do you know that again?

16           Is that in the source code?

17      A    That is in the source code, right.

18      Q    Okay.

19           MR. SOOBERT:  Diane, let's go to DX1017,

20  please, and go to the second page, please.

21           And this is tough to read.  Let's go to

22  the next page, please, Line 4178 at the bottom.

23           Just highlight that, please.

24      Q    (By Mr. Soobert) And this -- this is actual

25  source code, the computer instructions taken from the
```

 2   A   Yes. This is from the Spotlight project.

 3   Q   Okay. Can you describe what's shown there? I

 4 mean, this looks pretty technical, but can you sort of

 5 try to explain this to me?

 6   A   Sure. So this is a function in the source

 7 code that inserts a new database object -- that's what's

 8 called the ndbo for new database object -- into the

 9 DataStore.

10   On the page which has the page number here

11 with PG -- yeah, this is -- this is the top of that

12 function.

13   MR. SOOBERT: So let's go to the next

14 page of this, Diane, Lines 4218, please.

15   4218, 4219. We'll look at 4224 in a

16 second.

17   Q   (By Mr. Soobert) And what does this tell us

18 right here?

19   A   Okay. So what we're looking at here is the

20 section of the code that finds the right spot in the

21 database page to insert a new database object. So that

22 would be the ndbo.

23   And it does that by the object identifier,

24 which we have shortened to OID. And this is -- this is

25 what we call a loop. It starts by comparing, to make

 2   then it compares the object we're currently looking at.

 3   That would be the dbo to the new one we want to insert.

 4   And if the object identifier of the new object

 5   is greater than the object identifier of the object in

 6   this spot on the page, we call this thing the next dbo

 7   that gets -- that basically calculates where the next

 8   database object on the page is.

 9   We move forward to that object, and then we

10   compare the -- that object to the new dbo. And then we

11   proceed like that until we find the right slot -- the

12   right spot on the page to insert the object.

13   It's basically like trying to put a book in a

14   bookshelf. If you have your books sorted by author, you

15   start at one end and you browse through them until you

16   get to the proper letter, and then you insert the book.

17   Q   Right. And then in that analogy, those books

18   are arranged by object ID?

19   A   Right.

20   Q   That's how they are tracked, and those aren't,

21   again, in any kind of time-ordered sequence; is that

22   right?

23   A   Right.

24   MR. SOOBERT: Let's go to JH6, please.

25   Oh, I'm sorry. Can we go back to that

2   Okay. Go back to that third page,

3 please, and that one line, 4224.

4   Q   (By Mr. Soobert) And what is -- what does this

5 part of the code tell us?

6   A   So this is a comment that the developer who

7 wrote this inserted, saying that we should check that

8 the object isn't already existing. And if it already

9 exists, we'll return with an error so that we don't

10 accidentally insert the same thing twice.

11   Q   Now, is there any kind of time mechanism -- I

12 mean, tiebreaker mechanism in here?

13   A   In here?

14   It's only the object identifier, no tiebreaker

15 is needed. Object identifiers uniquely identify one

16 file in the file system.

17   Q   Right. So Spotlight uniquely identifies

18 each -- each document based on that object identifier,

19 and it doesn't need to look to any other data to break

20 any kind of tie, because there are no ties, right?

21   A   There cannot be a tie on a single file system.

22   Q   Okay.

23   MR. SOOBERT: Diane, can you bring up

24 JH -- JH6, please?

25   Q   (By Mr. Soobert) Now, I just want to briefly

2 that was relevant to the Spotlight Store.

3   MR. SOOBERT: Can we go to the next

4 slide?

5   Q   (By Mr. Soobert) And -- and what does this

6 tell us and show?

7   A   So this shows how data is organized in the

8 term index, and you will have -- you have terms, and for

9 each term, there is a -- there's -- basically, there's a

10 circle in this tree corresponding to a term.

11   Q   Okay. So this is the part of the code that

12 actually, as I start typing into the Spotlight window,

13 starts pulling up the words. This is how it does it

14 through this tree structure?

15   A   Yeah.

16   Q   And this part of Spotlight or the content

17 index is likewise not ordered by time. It's simply this

18 data tree structure?

19   A   Yeah. This is stored in an order that would

20 be alphabetical.

21   Q   Okay. So it's alphabetical and not by time?

22   A   Yeah.

23   Q   Okay. There's no time-ordering to it at all,

24 right?

25   A   To this, there is no time-order.

2   DX290, please, Page 3.

3   Q   (By Mr. Soobert) Now, do you understand that

4   Apple's search technology provided the bases and

5   framework of the content index we just looked at for

6   Spotlight?

7   A   Yeah; that's correct. In Mac and Tiger, we

8   used the SearchKit, which was an evolution of something

9   called Twin that was developed by Apple's Advanced

10 Technology Group sometime in the early '90s.

11   Q   Okay. In that first paragraph there under

12 these figures --

13   MR. SOOBERT: Can you blow that up,

14 Diane? It starts with the content index.

15   Q   (By Mr. Soobert) And that statement there

16 essentially -- I'm paraphrasing -- reflects that the

17 content index is built using an evolved and optimized

18 version of SearchKit, which is that preexisting

19 technology you discussed?

20   A   Yeah, that's correct.

21   SearchKit was introduced as a developer API in

22 Panther, but had existed and was -- had been used

23 internally at Apple for many years before that.

24   Q   Okay. And this document, this is the Apple

25 document that Apple provides to software developers?

2   Q   Okay. So they can understand how -- how the

3   source code operates and what-not?

4   A   Yeah.

5   Q   Okay.

6   A   That's -- this is for them to understand how

7   to write their programs.

8   Q   Okay. Now, let me ask you a couple of

9   specific questions about the operation of Spotlight.

10   Now, does Spotlight -- does the Spotlight

11   index index everything?

12   A   No. The Spotlight index avoids indexing

13   things we don't think will be useful for the user,

14   because there's quite a significant cost in indexing.

15   Q   All right. And what kinds of things are

16   excluded from the index?

17   A   The first thing is temporary files, files that

18   just come and go. Then there are files that we regard

19   that are private to a program that users are not really

20   intended to deal with.

21   You might have -- I guess a good example would

22   be any application that deals with a collection of files

23   but provides like a unified interface to them.

24   For that, we wouldn't let you find those --

25   those -- that collection of files. We would only let

 2   Q   Okay. Now, the types of those documents that

 3   are excluded from the Spotlight index that aren't -- you

 4   know, there's some subset of documents, are there some

 5   pretty significant documents that might be excluded,

 6   like privacy-related documents or something?

 7   A   Yes. We have a feature that lets you exclude

 8   files that you don't want people to find on your

 9   computer. We call that Privacy.

10   Q   Okay. So if I have like tax returns and my

11   billing statements and documents that have my Social

12   Security number, these are like my most important and

13   sensitive documents?

14   A   Yeah. So it's very common that you would add

15   those to Privacy to keep someone from accidentally

16   bumping into them or someone that just gets -- happens

17   to gain access to your machine to quickly find them.

18   Q   Okay. Then those documents wouldn't be

19   indexed by Spotlight nor, by definition, returned in any

20   kind of Spotlight search results?

21   A   Yes. In fact, we actually actively remove

22   them from our index, if they were already were indexed

23   and you were to add them to the Privacy setting.

24   Q   Okay.

25   MR. SOOBERT: Can you move to show JH8?

2   reflect this Privacy exclusion that keeps the private

3   documents out of Spotlight?

4   A   Yeah, that's correct.

5   Q   Okay. All right. Let's talk for a second

6   about potentially future documents.

7   Does the Spotlight Store include any -- store

8   documents by future date?

9   A   No. We don't have any understanding of the

10 data that we store really. We just store what we're

11 told by applications to put in there, and we order it by

12 the object identifier.

13   Q   Okay. And so if I run the Spotlight search

14 and then I want to sort the results by date, can I sort

15 those results by future dates, some date out in the

16 future?

17   A   To my knowledge, in the user interface we

18 provide, there's no way of doing that.

19   Q   Okay. So just as an example, if I have

20 something on my calendar in that iCal application, okay,

21 that's out on my computer and I put I'm going to

22 vacation in a week, that's a future reminder or just an

23 object that I put into my system, right?

24   A   Yeah.

25   Q   Okay. And I run a Spotlight search and I just

2   pop up?

3   A   That object will show up, yes.

4   Q   Yes. And will that date, that date in the

5   future, show up in the -- or be able to be

6   searched on -- sorted on in the search results?

7   A   You're talking about the Finder here or --

8   Q   Yeah. I'm talking about the general file --

9   Spotlight operation.

10   A   Oh, no. As far as I know, there's no way of

11 sorting on that.

12   Q   So there's no way of sorting on a future date

13 in Spotlight; is that right?

14   A   That is my understanding, yes.

15   Q   Okay. And what are the dates in Spotlight

16 that could be, you know, sorted on or the date created,

17 last opened, and date modified; is that right?

18   A   That is correct, yes.

19   Q   Okay. So now let's talk real briefly about

20 this CFUUID.

21   Do you know what that is?

22   A   CFUUID is essentially a 16-character --

23 16-letter -- I guess we can call it a 16-letter word

24 that lets you uniquely identify something.

25   Q   Okay. And you understand Mirror Worlds

2   between two documents in a -- in the same volume on the

3   computer.

4   Is that -- is that true?

5   A   For this same volume, the object identifier is

6   always enough to break the tie.

7   Q   Okay. And that's in the source code, right?

8   A   That's in the source code, yes.

9   Q   Okay. And you just can't look at the screen

10   and look at Spotlight from the user perspective and

11   figure out how that operates, right?

12   A   We try very hard to hide how it works under

13   the cover.

14   Q   Right. So the user doesn't have to worry

15   about what's underneath the hood, and that's how --

16   that's how the source code in Spotlight operates, right?

17   A   Yeah. The source code is what defines how it

18   works, and the user interface is often entirely removed

19   from that operation.

20   Q   Okay. Now, if Mirror Worlds has questions

21   about that and they want to ask somebody about how that

22   source code operates, you're one of the very best people

23   to ask that, right?

24   A   Yeah, I would be the person to ask about that.

25   Q   All right. Well, let's see hear what they

  2   MR. SOOBERT: Pass the witness.

  3   CROSS-EXAMINATION

  4 BY MR. STEIN:

  5   Q   Good morning, Mr. Hornkvist.

  6   A   Good morning.

  7   Q   You've testified that the files are not stored

  8 in the Spotlight Store; is that correct?

  9   A   That is correct.

 10   Q   But there's information in the Spotlight Store

 11 that would enable you to find the corresponding file for

 12 the metadata that's in the Spotlight Store; isn't that

 13 true?

 14   A   The object identifier will let you find the

 15 corresponding item in the file system.

 16   Q   So you can go from the information in the

 17 Spotlight Store to the corresponding file in the file

 18 system, right?

 19   A   Normally that is true.

 20   Q   And you -- as you said, you do that just

 21 through that object identifier, right?

 22   A   Right.

 23   Q   When a typical customer buys a Mac computer,

 24 how many disk drives does it have in it?

 25   A   Typically, it has one disk drive, though it's

 1   the Time Machine feature.

 2

 3   Q   The Time Machine feature is an external disk

 4   drive. It requires an external disk drive, correct?

 5   A   Internal or external.

 6   Q   It's still typically is -- the Mac computers

 7   are sold with one disk drive, correct?

 8   A   It's my understanding that most Macintoshes

 9   are sold with one disk drive, though I don't work in

10   marketing, so I don't actually have sales figures.

11   Q   And it would be one Spotlight Store for that

12   one disk drive, correct?

13   A   That depends on whether the user has asked for

14   one or more stores. So it's very, very common for our

15   users to have -- to use partitioning, which allows you

16   to divide the drive up into multiple pieces. And then

17   there would then be one Spotlight Store for each of

18   those pieces of the hard drive.

19   Q   Out of the -- out of the box, the -- the disk

20   drive on the Mac would have one partition, right?

21   A   I believe it comes with one partition called

22   Macintosh HD.

23   Q   Thank you.

24   I think Mr. Soobert asked you if it was your

25   understanding that it's Mirror Worlds' position that the

```
 2  that right?

 3      A    That --

 4      Q    I'm just asking you if Mr. Soobert asked you

 5  that question, if it was your understanding that it is

 6  Mirror Worlds' position that the Metadata Store in

 7  Spotlight is arranged in chronological order.

 8      A    I don't think he asked me that question.

 9      Q    Do you know what Mirror Worlds' position is

10  with respect to infringement by Spotlight in this

11  litigation?

12      A    Not in detail, no.

13      Q    And the Metadata Store is just one component

14  of the Spotlight Store, right?

15      A    It's one of the two major components.

16      Q    And there's something called the Spotlight

17  server in Spotlight.  Are you familiar with the term

18  Spotlight Server?

19      A    I -- there are a couple of things you might be

20  referring to.  One is the Spotlight server process.

21           Is that what we're talking about?

22      Q    Yes.

23      A    Okay.

24      Q    And the Spotlight server process -- by the

25  way, before I ask that question, are you familiar with
```

 2   A   It's one of many descriptions that people use

 3 about Spotlight.

 4   Q   And that would include this Spotlight Server

 5 process, correct?

 6   A   It might, yes. It's not a clear term in that

 7 sense.

 8   Q   And the Spotlight server process controls

 9 access to the information within the Spotlight Store,

10 correct?

11   A   The Spotlight server process is the component

12 that essentially uses the Metadata Store and the content

13 index and controls access to it, makes sure that other

14 users can't see documents that belong to you and so

15 forth.

16   Q   So this Spotlight server process is the way in

17 which other programs within Apple's operating system

18 gets access to the Spotlight Store, correct?

19   A   Yes. In the sense that they use a programming

20 interface that we call metadata framework, which takes

21 the program's request and sends it on to the server.

22 But that's entirely hidden from the user or from the

23 software developer.

24   Q   The -- the -- right. Thank you.

25   And the -- you mentioned the application

2   interact -- get their programs to interact with this

3   Spotlight Store, correct?

4   A   That is correct.

5   Q   So the programmers don't need to know what's

6   going on inside the Spotlight Store; they interact with

7   it through this API, application program interface,

8   right?

9   A   That's correct.

10   We recommend certain ways of using it to

11   improve performance; but beyond that, they don't need to

12   know much to make it work correctly.

13   Q   Now, you're aware that in Leopard, metadata

14   was added to the content index, correct?

15   A   Yes. I did a large part of that work.

16   Q   And that metadata includes time-based

17   metadata, correct?

18   A   That includes -- yeah. That included numbers,

19   dates, strengths, and true/false values.

20   Q   And the reason it was added was so that this

21   time-based metadata could be -- before I ask that, and

22   that time-based metadata includes things like content,

23   last updated, timestamp, type-in, you know, information

24   like --

25   A   It -- as far as I recall, it contains very

2   system itself has things like the creation date, the

3   date the content was modified and so forth.

4   Q   It did include the time-based metadata from

5   the metadata that was stored in the Spotlight Store,

6   correct?

7   A   Yes.

8   Q   And the reason for doing that was so that that

9   information could be accessed more quickly, correct?

10   A   No. The reason for doing that was so that you

11   could query on it, so that you could search for things

12   based on the date information.

13   Q   So if you wanted to search for documents that

14   were between -- in that date range, it would be easier

15   to find the documents within that date range, correct?

16   A   Yeah. It would be quicker, correct.

17   Q   And let me see if I heard you properly.

18   You said the Spotlight Store does not index

19   things that -- and I think you said, quote, are not

20   useful to the user; is that correct?

21   A   Could you repeat that? I didn't hear.

22   Q   You stated earlier that the Spotlight Store

23   does not index things that are not useful to the user;

24   is that --

25   A   We try to avoid that. It's a very, very

2 might be useful to you; what is useful to me as a

3 software developer might not at all be useful to you.

4   So we have some -- we have some heuristics for

5 locations that we regard as unlikely to be useful for

6 most users. And if some users are then disappointed

7 because they can't find it, we would rather take that

8 than confuse most users with files that are not useful

9 to them.

10   Q   All right. You also mentioned a privacy

11 feature, and you said that users can use that to exclude

12 documents, right?

13   A   That is correct.

14   Q   Users don't have to use that privacy feature,

15 correct?

16   A   It's up to the user whether they want to use

17 that or not.

18   Q   And I think I saw, when Mr. Soobert put up the

19 slide, that in order to reset the -- the privacy

20 feature, you had to go through the -- was that the

21 system's preferences menu?

22   A   That is the system preferences, yes.

23   Q   So the user would have to pull up that

24 system's preferences menu and then make some kind of

25 adjustment within there, correct?

2   search menu, which is our primary user interface. As

3   soon -- whenever you have search results up in the

4   Spotlight search menu, you also see a field that you can

5   click, to go to this panel.

6   Q   You also talked a little bit about the future

7   times. One of the items of metadata items is the --

8   something called the due date; isn't that right?

9   A   That's quite possible, yeah. We have a -- we

10   have a very large schema, which contains essentially

11   everything we could think of that might be useful to --

12   to have in the DataStore.

13   Q   And -- and in Leopard, that due date also was

14   one of the pieces of metadata that would have been put

15   into the Content Store, too, correct?

16   A   That would have been indexed.

17   Q   You started working on Spotlight after --

18   after the release of Tiger; is that right?

19   A   No. I started working on Spotlight probably

20   sometime during 2004 in my role as an engineer on the

21   Mac OS 10 performance team; and I joined the Spotlight

22   team full time, I believe in January of or February

23   2005, which would have been a couple of months before

24   Tiger shipped.

25   If I -- if I have my timeline correct, Tiger

 2   Q   Thank you.

 3   MR. STEIN: No further questions.

 4   THE COURT: Redirect?

 5   MR. SOOBERT: None here, Your Honor.

 6   THE COURT: All right. You may step

 7 down.

 8   Who will be your next witness?

 9   MR. RANDALL: Mr. Pavel Cisler, Your

10 Honor.

11   THE COURT: Mister who?

12   MR. RANDALL: Pavel Cisler.

13   COURTROOM DEPUTY: Please raise your

14 right hand to be sworn.

15   (Witness sworn.)

16   PAVEL CISLER, DEFENDANTS' WITNESS, SWORN

17   DIRECT EXAMINATION

18 BY MR. RANDALL:

19   Q   Can you please state your name for the record?

20   A   My name is Pavel Cisler.

21   Q   Okay. And I have to lean into this

22 microphone, so -- unfortunately, everybody does. This

23 stem is a little bit short.

24   Can you describe your educational history

25 after high school?

2 engineering from the Czech Technical University in

3 Prague.

4   Q   Do you also have a master's degree?

5   A   Sorry. Yeah. I have a master's in electrical

6 engineering, yes.

7   Q   And what did you do after you got your

8 master's degree?

9   A   I had a brief period of working as an

10 electrical engineer. Then I started a software company

11 in the Czech Republic. We worked on Macintosh software.

12   After that, in '94, I moved to the Silicon

13 Valley, and I worked at three startups: General Magic,

14 B Incorporated, and Easel.

15   And after that, in 2001, I started at Apple

16 Computer.

17   Q   Okay. And we all have to -- you'll have to

18 lean into the microphone just a little bit, so we can

19 all hear.

20   A   Okay.

21   Q   What's your current position at Apple?

22   A   At Apple, I managed the Finder and the Time

23 Machine teams.

24   Q   And is the Finder, is that really a window

25 that displays the results of searches of Spotlight?

2   that lets you open folders and examine files, and it

3   also lets you do searches, among other things.

4   Q   All right. And what other positions have you

5   held at Apple?

6   A   When I first started in 2001, I was a software

7   engineer on the Finder team. Eventually -- I believe

8   after two years, I became the tech lead of the Finder.

9   And then later, I started managing the team.

10   And around the beginning of the Leopard

11 project, I assembled a team that started developing Time

12 Machine. And since that time, I have managed both the

13 Finder and the Time Machine teams.

14   Q   Is there -- are you familiar with a -- what's

15 called a -- kind of a Coverflow view of information in

16 the Finder?

17   A   Yes, I am.

18   Q   Okay. Do you understand that Apple obtained a

19 technology license from a company called Steel Skies in

20 May of 2006 for $70,000 to this Coverflow technology?

21   A   Yes, that's my understanding.

22   MR. RANDALL: Let's go to DX636 at

23 Page 1.

24   And if you can just highlight that

25 section there (indicates).

2   agreement between Apple and Andrew Coulter Enright, and

3   Jonathan del Strother, and it's dated May 15, 2006.

4   MR. RANDALL: Down at Section 2.1, if you

5   can scroll down, is the assignment to Coverflow art,

6   which is about the fourth line from the bottom.

7   And then if we can flip, Diane, to the

8   next page, which is 4.1, Section 4.1. And, again, this

9   is Exhibit 636.

10   Q   (By Mr. Randall) The consideration is $70,000.

11   MR. RANDALL: And then if we can go to

12   Page 7 of this document, it's the technology description

13   at Exhibit A.

14   Q   (By Mr. Randall) And the first paragraph up

15   there says: Software for album browsing that enables

16   the users to browse and launch digitally stored albums

17   by viewing and flipping through the album art as

18   described in the following websites hereinafter referred

19   to as Coverflow software.

20   And then a few lines down, it says: Copies of

21   these webpages are attached hereto.

22   Is it your understanding, sir, that Apple

23   licensed, for $70,000, a technology license from Steel

24   Skies for the Coverflow view that is utilized in various

25   products at Apple?

```
 2      Q    Thank you.

 3                MR. RANDALL:  No further questions, Your

 4  Honor.

 5                THE COURT:  All right.  Cross-exam.

 6                     CROSS-EXAMINATION

 7  BY MR. STEIN:

 8      Q    Good morning, Mr. Cisler.

 9           The Steel Skies license that Mr. Randall was

10  just mentioning, that wasn't a patent license, was it?

11      A    I believe it was a license to acquire the

12  technology.

13      Q    But there were no patents involved in that

14  license, was there?

15      A    I'm not sure.

16      Q    You don't know, right?

17      A    No.

18      Q    It had just been a copyright license, for

19  example, right?

20      A    I'm -- I'm -- I'm -- I don't know.

21      Q    And didn't Apple already implement internally

22  its own version of Coverflow before it signed that

23  license with Steel Skies?

24      A    I don't believe that's the case.

25      Q    Do you know that Apple was working on
```

2 was signed?

3   A   I don't believe -- I'm not aware of Apple

4 working on a version of Coverflow before that license.

5   Q   Do -- do you know one way or another if Apple

6 was working on that?

7   A   As far as I know, Apple wasn't working on it.

8   Q   Do you know who implemented the first version

9 of Coverflow at Apple?

10   A   I believe the technology was licensed, and

11 then it was -- after it was licensed, it was added to

12 iTunes, to the iTunes application by the iTunes team.

13   Q   I asked you if you knew who created the code

14 for Coverflow, the original version of the code at

15 Coverflow for Apple.

16   A   Well, I believe it's -- it's the gentleman

17 that we licensed the technology from.

18   Q   You don't know that Apple completely rewrote

19 the code on its own and did not use any of the code from

20 the people they licensed Coverflow from?

21   A   Well, the -- it depends on which

22 implementation of Coverflow. There's a version of

23 Coverflow that's used in the Finder.

24   And that version, to my knowledge, was

25 reimplemented by the Image Kit team in Paris, and the

2   named -- I know him. His name is Thomas Goossens.

3   Q   Do you know a gentleman named Mr. Heller?

4   A   Yes, I do.

5   Q   Do you know that he was designated by Apple

6   early in this case to speak on behalf of Apple regarding

7   this agreement that we've been talking about in the

8   development of Coverflow?

9   A   Yes, I do.

10   Q   Well, during his deposition, he said that when

11 I asked him if Apple used any of the source code

12 provided by Mr. Enright and Mr. del Strother, who are

13 the people Apple licensed that technology from -- if

14 Apple used any of the source code provided by them in

15 the implementation of Coverflow and iTunes, he said: In

16 the end, we did not use any of their source code.

17   Do you have any reason to disagree with that?

18   A   I don't. I'm sure that's correct. Mr. Heller

19 was closer to that work than I was.

20   Q   And he also made it clear that Apple was

21 developing that source code before that license was even

22 signed. Are you aware of that?

23   A   I'm not aware of that.

24   Q   Do you have any reason to disagree with that?

25   A   I -- if that's what Mr. Heller said, then I'm

 2   MR. STEIN: All right. James, could you

 3 bring up Plaintiff's Exhibit 130?

 4   And blow up the top, please.

 5   Q   (By Mr. Stein) This is an e-mail sent by Gene

 6 Ragan to Peter, but also copied the Finder team, the

 7 finderteam@group.apple.com. It's dated October 10,

 8 2002.

 9   You were a member of the Finder team in 2002,

10 correct?

11   A   That's correct, yes.

12   Q   And you would have received this e-mail,

13 correct?

14   A   Yes, that's -- that's very likely.

15   Q   And this e-mail is basically just a -- sending

16 the Scopeware website around to the Finder team,

17 correct?

18   A   That's correct.

19   Q   Thank you.

20   MR. STEIN: No further questions.

21   THE COURT: All right. Redirect?

22   REDIRECT EXAMINATION

23 BY MR. RANDALL:

24   Q   Do you understand that a technology license to

25 Coverflow from Steel Skies for album-flipping art and

2   Apple can implement that type of displays and that type

3   of technology in any way it specifically chose?

4   A   That's my understanding.

5   Q   All right. And you didn't -- Apple did not

6   lift quantities of source code and just plug it in;

7   Apple implemented it in different products in different

8   ways by writing this code, right?

9   A   That's -- according -- yes, that's correct.

10   Q   Thank you.

11   MR. RANDALL: No further questions.

12   THE COURT: Any further recross?

13   MR. STEIN: No.

14   THE COURT: All right. Thank you. You

15 may step down.

16   Who will be Defendants' next witness?

17   MR. RANDALL: Mr. Kevin Tiene, Your

18 Honor.

19   THE COURT: All right. Has this witness

20 been sworn?

21   MR. SOOBERT: No, he has not, Your Honor.

22   THE COURT: If you would raise your right

23 hand and be sworn.

24   (Witness sworn.)

25   KEVIN TIENE, DEFENDANTS' WITNESS, SWORN

 2 BY MR. SOOBERT:

 3   Q   Good morning, Mr. Tiene.

 4   A   Good morning.

 5   Q   Can you state your name for the record,

 6 please?

 7   A   My name is Kevin Tiene.

 8   Q   Okay. Where do you live?

 9   A   I live in Cupertino in California.

10   Q   Okay. And can you just describe your

11 educational history since high school?

12   A   Sure. I went to school in Upstate New York

13 for a few years at a college called Oneanta. And then I

14 transferred to George Mason University in Virginia, and

15 that's where I got my Bachelor of Science and Computer

16 Science.

17   Q   Okay. So you have a computer science degree?

18   A   Correct.

19   Q   Okay. And then sometime after college, you

20 joined Apple, right?

21   A   Yes. I joined Apple in 1988.

22   Q   Okay. And you're currently employed there at

23 Apple still?

24   A   Yes.

25   Q   Okay. So you've been there since 1988?

 2   Q   Okay. And what was your role in sort of the

 3   late '80s and early '90s?

 4   A   In the late '80s and early '90s, I was in a

 5   group at Apple called the Advanced Technology Group,

 6   also referred to as ATG.

 7   And there, we did a bunch of research into

 8   information, access, search, indexing, those kinds of

 9   technologies, and also human interfaces to those -- to

10   those search engines.

11   Q   Okay. Did you work with Gitta Salomon?

12   A   Yes, I did. I worked with Gitta during those

13   years in ATG.

14   Q   Okay. And you said you're familiar with

15   indexing and searching technology from back in those

16   days?

17   A   Correct.

18   Q   Okay. And then have you sort of tracked the

19   development of that over the years, Apple's evolution of

20   indexing and searching technology?

21   A   Yes, I have. And in some ways, my career at

22   Apple has sort of followed it as well.

23   MR. SOOBERT: Okay, Diane, can I have

24   KT002? I'm sorry. Next slide.

25   Q   (By Mr. Soobert) Okay. Mr. Tiene, this is a

2 Apple. Can you just briefly walk us through this

3 timeline just generally summarizing what's shown here?

4   A   Sure. So the first item there, number one, is

5 when ATG was formed. I joined ATG in late 1988 or early

6 '89.

7   During that time period, I worked on a number

8 of search and retrieval kinds of projects. I was

9 peripherally involved in the Piles project. Some of the

10 people that I -- that I worked with there were key

11 people working on the Piles project, and I worked a bit

12 with Gitta on that project as well.

13   Around 1994 -- up to that time, we had been

14 using kind of off-the-shelf search engines to do our

15 experiments, and in 1994, we decided that it made sense

16 for us to develop our own search engine.

17   And so we had that developed, an engine that

18 we called V-Twin, and it allowed us to -- our hope for

19 that was that we would be able to use it for research,

20 but also that we would write that engine to be product

21 quality such that we hoped that it could be used in

22 Apple products along the way.

23   In Bullet No. 4 there, you can see that that

24 is referring to a product that we actually did release

25 called Sherlock that was part of the operating system,

2   its -- as its indexing and -- and searching engine.

3   Subsequent to that, we took that V-Twin

4   engine; and as Apple moved to Mac OS 10, we repackaged

5   that engine and started calling it SearchKit, and that

6   engine was -- was made available not only to Apple but

7   also to third-party developers.

8   And it was also the engine that was used as

9   the basis of Spotlight when Spotlight was -- Spotlight

10   was released in -- it looks like 2004. The V-Twin

11   engine was the engine that was used to do content

12   indexing and retrieval for the users' files on their

13   hard drive.

14   Q   Okay. Thank you.

15   And all of these technologies use some form of

16   indexing and searching technology, right?

17   A   Correct.

18   Q   Okay.

19   MR. SOOBERT: Diane, can you give me

20   DX1019, please?

21   Q   (By Mr. Soobert) Mr. Tiene, do you recognize

22   this document?

23   A   Yes. This is a document that is from a Text

24   Retrieval Conference, and I believe this is -- the

25   conference is called TREC. And I believe that this is

2   the papers having to do with V-Twin engine to the

3   conference.

4   Q   Okay.

5   MR. SOOBERT: Can we go to Page 6,

6   please?

7   Q   (By Mr. Soobert) This is the front page of

8   that article from the conference. You're familiar with

9   this article, right?

10   A   Yes.

11   Q   This paper. And this accurately describes the

12   V-Twin preexisting searching and indexing technology; is

13   that right?

14   A   Correct.

15   Q   And this is from the mid-'90s, this paper.

16   This particular paper was published in 1997, right?

17   A   Yes.

18   Q   But this technology existed, you know, well

19   before 1996 as well, right?

20   A   Correct.

21   Q   Okay. All right. Let's shift gears and focus

22   in on 2003. Do you recall a Merlot offsite meeting?

23   A   Yes.

24   Q   And what was the focus of that meeting?

25   A   So Merlot at that time was the name that we

 2   and every time that we start a new, big project like

 3   that, we go do an offsite meeting.

 4   And the purpose of that is to get everybody

 5   who are the key players in deciding what's going to be

 6   part of that next release, get them off to a location

 7   where there aren't distractions, their phones aren't

 8   ringing, and spend a day focusing on -- on what we

 9   should be building for the next -- for the next OS

10   release.

11   Q   Okay. Was that -- was that some sort of super

12   secret meeting to get together and discuss ideas and

13   concepts from Dr. Gelernter or Mirror Worlds or

14   Scopeware or the like?

15   A   Absolutely not.

16   Q   Okay. And how -- and you remember that?

17   A   I don't remember all of the details, but

18   those -- those offsites covered quite a wide variety of

19   topics. And given my history in -- in being involved in

20   text retrieval, I certainly would remember if there

21   was -- if there was any significant discussion of such

22   things.

23   Q   Okay. Let's try to refresh your recollection

24   just a bit.

25   MR. SOOBERT: Can we go to Plaintiff's

 2   Q   (By Mr. Soobert) Mr. Tiene, this was an e-mail

 3   marked during your deposition earlier in this case that

 4   looks like an e-mail that you sent to yourself, and I

 5   think you describe it as notes that you had, you know,

 6   jotted down and kind of summarized in this e-mail from

 7   that Merlot offsite in 2003, right?

 8   A   Exactly, yes. It appears as though -- as I

 9   looked through the documents, there were several

10   timestamps throughout the day of this document as the

11   meeting progressed.

12   And this was an e-mail that I was simply

13   capturing the notes of the -- of the meeting, as much as

14   anything to make sure I was staying awake and paying

15   attention to what was going on.

16   And in some cases, I made little annotations.

17   You can see here that I put three stars next to install

18   performance, because my group was responsible for the

19   installer, and I wanted to make sure to dig into that.

20   Q   Okay.

21   MR. SOOBERT: Diane, let's go to Page 2

22   at the top.

23   Q   (By Mr. Soobert) And you see there you typed a

24   reference: Scopeware, question mark, Yale, ask Ted.

25   Do you see that?

2   Q   It doesn't mention anything about

3   Dr. Gelernter there or Mirror Worlds, does it?

4   A   No.

5   Q   Okay. Do you -- does this jog your memory

6   whether Dr. Gelernter's name even came up at the

7   meeting?

8   A   I don't know if his name came up. My

9   understanding of -- of this, you know, looking through

10   the document, this is -- happened at the -- during the

11   tail end of one of the presentations, and people were

12   asking questions.

13   And to the best of my ability, my

14   understanding about what happened here is that a

15   gentleman by the name of Ted Goldstein must have said:

16   Hey, you know, someone -- maybe we should look at this

17   thing called Scopeware. I saw, you know, some article

18   or news about it or whatever. Just came up as a

19   comment.

20   I clearly wrote: Scopeware, question mark,

21   because I didn't know what it was. Yale, because I

22   think he had mentioned that the gentleman was from Yale,

23   and I just wrote a note saying, Ask Ted, meaning, I

24   don't know what this is. Ask Ted, if you want to know

25   what it is.

 2   that? Did you ask Ted or, you know, perhaps submitted

 3   these notes to someone who was maintaining the minutes?

 4   A   So I believe that Ted proactively sent an

 5   e-mail to -- to myself. I think he just happened to be

 6   sitting close to me and saw that I was taking notes.

 7   He sent an e-mail to Tim Shaw, who I believe was

 8   collecting the notes, and myself just saying: Hey,

 9   here's what I meant by that, and I think he sent -- the

10   text of the e-mail had references to some web URLs. And

11   I think -- I think that's what happened.

12   Q   Okay. But as far as you recall, you

13   specifically recall, you don't remember Dr. Gelernter's

14   name being mentioned at the meeting; is that right?

15   A   I do not remember his name being mentioned.

16   Q   All right. So let me ask you this: You know,

17   based on your understanding and your work at -- at

18   Apple, can you tell me and tell the jury whether your

19   understanding is, did Scopeware or Dr. Gelernter or any

20   of Mirror Worlds' ideas or patented technology or

21   products influence Apple's product development in any

22   way?

23   A   Not in any way that I am aware of whatsoever.

24   Q   Okay. Thank you.

25   MR. SOOBERT: Pass the witness.

2   CROSS-EXAMINATION

3 BY MR. DIAMANTE:

4   Q   Good morning, sir.

5   A   Hi.

6   Q   I've been requested to speed up and slow down,

7 and we have not much time, but -- I speak quickly, but

8 I'll try to get through this.

9   Now -- so you weren't -- weren't you

10 appointed, selected -- hand selected by Apple to

11 investigate Apple's employees?

12   A   I was appointed to act as a 30(b)(6)

13 representative for a series of e-mails.

14   Q   And in common language, you have -- you-all

15 spoke to some people about e-mails, about Scopeware or

16 Dr. Gelernter, correct?

17   A   That's correct.

18   Q   And let me guess: No one remembered anything,

19 correct?

20   A   For the most part, that is absolutely true.

21 No one remembered -- remembered any part of it.

22   Q   So you're like -- so this is Apple

23 investigating Apple, correct?

24   A   (No response.)

25   Q   Is that true?

2   Q   And, sir, how many years have you been at

3 Apple?

4   A   22.

5   Q   And I saw that pretty little timeline you

6 showed before with V -- is it V-Twin? I think you

7 forgot to mention something.

8   MR. DIAMANTE: Can we turn --

9   Q   (By Mr. Diamante) Did you get an e-mail about

10 a demonstration, about Scopeware?

11   A   I did, yes.

12   MR. DIAMANTE: Can I see PTX191, James?

13   Q   (By Mr. Diamante) This talks about the

14 prospective demonstration, about Scopeware. Do you see

15 that, with Don Lindsay?

16   A   Correct.

17   Q   And, sir, weren't you at that demonstration?

18   A   I'm not sure. So this came -- we discussed

19 this in my deposition. I have a vague recollection of

20 perhaps being in the room. I don't really remember the

21 presentation.

22   I kind of remember that it was odd in that

23 someone was doing the presentation via a website but

24 talking on the phone. It didn't -- it didn't make much

25 of an impression.

2 a Bertrand Serlet. Do you see that, sir?

3   A   Yes.

4   Q   And Scott Forstall?

5   A   Correct.

6   Q   They're top people at Apple, aren't they?

7   A   Sure.

8   Q   You didn't talk to them about whether --

9 anything about Scopeware or Dr. Gelernter, did you?

10   A   I did not. My understanding was, they were

11 being deposed, so I didn't talk about it.

12   Q   So when he -- when Counsel asked you a

13 question about whether there was any copying of this

14 man's ideas, you never spoke to the top guys, did you?

15   A   I did not speak to them because I didn't feel

16 that I had to in that case. I don't believe that

17 Bertrand or Scott participated in that demonstration

18 whatsoever.

19   Q   I didn't ask that question. I asked whether

20 they knew about Scopeware and Dr. Gelernter.

21   You never asked them. You never asked those

22 gentlemen, did you?

23   A   I did not.

24   Q   And, sir, this gentleman who had the demo, Don

25 Lindsay, wasn't -- didn't he work for you?

2   Q   And you still don't remember anything about

3 this, do you?

4   A   No. I -- as I say, the only thing I remember

5 is that Don set up some sort of demonstration. I don't

6 remember it being noteworthy, and there was no followup

7 whatsoever, in terms of e-mail, other than Don thanking

8 for the -- I think the gentleman's name was Randy Prager

9 that set it up, and thanking him for the presentation.

10   Q   And let's -- let's go back. You mentioned the

11 Merlot meeting.

12   MR. DIAMANTE: Can we go back to your

13 notes at PTX391?

14   I'm sorry. That's not -- I'm sorry.

15 Your -- the notes are not -- I don't even need to see

16 them. I think it's PTX -- there's too many PTXs here.

17   Q   (By Mr. Diamante) On your -- on your

18 handwritten notes, why aren't those notes -- didn't

19 you -- didn't you previously testify that those notes

20 were major points discussed at that -- at your meeting?

21   A   Those notes were capturing what was going on

22 in terms of the presentation. So if you look through

23 those notes, it's about, I would say, five pages' worth

24 of notes on topics being discussed.

25   Q   Not to cut you off, sir, but didn't you

2   at that meeting? Yes or no.

3   A   I was capturing the main bullet points and the

4   questions that came up as a result of that.

5   Q   So Scopeware, Yale, ask Ted was a major bullet

6   point, correct, sir?

7   A   No, it was not a major bullet point. It was a

8   comment that was made after the presentation was over.

9   MR. DIAMANTE: Can I see his deposition

10   at Page 114, please?

11   You know something? Don't even bother.

12   We'll move on. Let me move on.

13   Q   (By Mr. Diamante) Now, this gentleman, who you

14   told us was ask Ted, is Ted Goldstein?

15   A   I believe so.

16   Q   Well, did he -- was he a bright man?

17   A   Yes.

18   Q   Knowledgeable?

19   A   He's a smart individual.

20   Q   Is he -- he worked -- he worked on some of the

21   accused products, didn't he?

22   A   Excuse me?

23   Q   He worked -- he worked on Spotlight?

24   A   No, he did not.

25   Q   What products did he work on?

2   Q   Okay.

3   A   -- so he -- he developed the tools that we

4 used to build our system, but he had nothing to do with

5 Spotlight.

6   Q   But he relayed -- he's the one that relayed

7 this information, correct, at the meeting?

8   A   Yes. It was something that he had seen either

9 in the news or -- I'm not -- I'm not sure where. He was

10 the only one in the room that knew what it meant.

11   Q   And these -- in your meeting, though, it found

12 its way to the final notes at Merlot, didn't it?

13 Your -- didn't it, sir?

14   MR. DIAMANTE: Could I see -- can I see

15 PTX110 at Page 3?

16   Q   (By Mr. Diamante) These are the final notes,

17 correct, sir?

18   A   These are the final notes.

19   Q   And did you receive a copy of these notes?

20   A   I probably did.

21   Q   And it says: Yale professor, David Gelernter,

22 new ways of finding information, correct?

23   A   Yes. And that came from an e-mail that Ted

24 sent outside of the meeting to -- to Tim Schaaff, who

25 collected these notes. And instead of having a question

 2   substituted in the information that Ted had sent him in

 3   an e-mail.

 4   Q   I get that.

 5   And do you know your -- your -- your company's

 6   trying to cancel this man's rights? You know that. You

 7   understand that, don't you, sir? Do you have that

 8   understanding?

 9   A   I don't know actually what you mean by that.

10   Q   Right. And you see the V-Twin there that you

11   spoke about in that pretty chart, that happened before

12   2003, correct?

13   A   Way before.

14   Q   And that says: New -- this is 2003.

15   It says: New ways of finding info. How come

16   you're not talking about V-Twin in this memo?

17   A   (No response.)

18   MR. DIAMANTE: I have no further

19   questions.

20   MR. SOOBERT: None here, Your Honor.

21   THE COURT: All right. Thank you. You

22   may step down.

23   Who will be your next witness?

24   MR. RANDALL: Your Honor, Apple's next

25   witness is Randy Prager played by videotape. He was the

2   And the time breakdown on that is Apple,

3 20 minutes and 29 seconds, and Mirror Worlds 3 minutes

4 and 21 seconds.

5   THE COURT: Okay. I tell you what, I

6 think we'll go ahead and take our morning break at this

7 time. I have two criminal matters I need to take up at

8 10:30.

9   So, Ladies and Gentlemen of the Jury,

10 we'll be in recess until 10:45, maybe a little longer

11 than that, but shouldn't be much. So enjoy a nice break

12 this morning, and we'll see you back here at 10:45.

13   We'll be in recess until the lawyers can

14 switch out and get set up.

15   COURT SECURITY OFFICER: All rise.

16   (Jury out.)

17   (Recess.)

18   (Jury out.)

19   COURT SECURITY OFFICER: All rise.

20   THE COURT: Please be seated.

21   All right. Before we bring the jury in,

22 I understand there's some question about the time.

23   MR. RANDALL: Yes, Your Honor.

24   We had for our time yesterday, the total

25 time that we had used, somewhere -- I think we had 6

2 side-bar time was being charged to us.

3   THE COURT: That you had only used 6

4 hours, 43 minutes?

5   MR. RANDALL: What's that?

6   THE COURT: That you had only used 6

7 hours and 43 minutes --

8   MR. RANDALL: Yes, Your Honor.

9   THE COURT: -- at the end of yesterday?

10   MR. RANDALL: Yes, Your Honor.

11   THE COURT: Okay. And is Plaintiff's

12 right?

13   MR. CARROLL: You're keeping the time,

14 Your Honor, and we're not about to say no.

15   THE COURT: All right. And I had you

16 down for having used, I think, 7 hours and 50 minutes,

17 right?

18   MR. RANDALL: Right. So about, roughly,

19 an hour off.

20   THE COURT: Okay. Let me -- I keep some

21 notes here. I will go back and look at it, but I see

22 that you've still got three hours.

23   How much do you need?

24   MR. RANDALL: I do need the time. I

25 really do. And I've planned accordingly.

2 me look back. We did have those sentencings yesterday.

3 I've been known to let -- forget to turn the clock off,

4 and that may have happened. But I think I can

5 reconstruct it from my notes here and get a good idea.

6   MR. RANDALL: Thank you very much, Your

7 Honor.

8   THE COURT: All right. Thank you.

9   All right. Bring the jury in, please.

10   COURT SECURITY OFFICER: All rise for the

11 jury.

12   (Jury in.)

13   THE COURT: Please be seated.

14   All right. Who will be your next

15 witness?

16   MR. RANDALL: Your Honor, this is going

17 to be a videotaped deposition of Mr. Randy Prager who

18 was Mirror Worlds' Chief Technology Officer, and I gave

19 you the time breakdown previously.

20   (Video clip playing.)

21   QUESTION: Would you state your full

22 name, please?

23   ANSWER: Randy Lee Prager.

24   QUESTION: What role did you assume when

25 you joined Mirror Worlds?

2 technology, Technology Team, managing the Technology

3 Team, being able to talk about technology during sales,

4 that kind of thing.

5   QUESTION: Do you have any arrangements

6 with your lawyers to be paid for time spent on this

7 case?

8   ANSWER: I did -- I did -- I did do some

9 consulting work for -- for them in '09 for a couple of

10 months.

11   QUESTION: And how much money did you --

12 did you receive?

13   ANSWER: I think roughly -- roughly

14 30,000 over the course of a couple of months.

15   QUESTION: And the Mirror Worlds'

16 Lifestreams product utilized the Verity software for

17 indexing and searching data, correct?

18   ANSWER: I -- I -- I think we used -- to

19 my recollection, I think we used Verity. I'm not sure

20 we used it for indexing per se. I think we may have

21 used it for some of their ability to open documents of

22 various types.

23   I think we used Lucene, which was an open

24 source indexing technology to do the actual indexing.

25 At least that's my recollection.

2 UNIX operating systems?

3   ANSWER: I believe we did, yes.

4   QUESTION: All right. The second

5 paragraph says: The original business plan was to

6 reduce the concept to practice.

7   And they are referring there to David

8 Gelernter's --

9   ANSWER: I read it, okay.

10   QUESTION: -- right?

11   ANSWER: Yeah. Sure.

12   QUESTION: Do you believe that Mirror

13 Worlds did reduce Mr. Gelernter's concept to practice?

14   ANSWER: I believe we came very close.

15   QUESTION: And ultimately,

16 Mr. Gelernter's concept as reduced to practice in

17 Lifestreams in streams and Scopeware was not successful,

18 correct?

19   ANSWER: I think it's fair to say it was

20 not commercially successful.

21   QUESTION: With respect specifically to

22 the technology, what's your understanding, if any, as to

23 why that Mr. Gelernter's concept, as implemented in

24 Scopeware, was not accepted by the marketplace?

25   ANSWER: I think -- here's my feeling on

2   compelling, was very good.

3   I think we were, in many respects, kind

4   of ahead of the curve a little, but I think a lot of

5   David's ideas and our products really foretold kind of a

6   social networking phenomena that we've all seen in the

7   past five years. I just think we were a little too

8   early for the concept -- the concepts to really take

9   off. That's my belief.

10   QUESTION: Well, with respect to

11 Scopeware's use of third-party software to index and

12 search --

13   ANSWER: Yeah.

14   QUESTION: -- for documents, that

15 capability --

16   ANSWER: Uh-huh.

17   QUESTION: -- existed in competing

18 products, correct?

19   ANSWER: Yes. I believe -- I believe

20 indexing technology existed in other places. That's

21 absolutely true.

22   QUESTION: And so did search technology,

23 right?

24   ANSWER: Yes.

25   QUESTION: So in the 2000 timeframe and

2 had indexing and search capabilities that they were

3 utilizing, correct?

4   ANSWER: Uh-huh. That's correct.

5   QUESTION: What added benefit, if any,

6 did Scopeware provide specifically to the existing

7 indexing and search capabilities that existed in the

8 marketplace in 2000 and beyond?

9   ANSWER: Again, my personal belief is

10 that one of Scopeware's main goals was to kind of change

11 the paradigm with respect to having these files in

12 folders and categories to store information; that you

13 could store information freed from those predefined

14 categorizations.

15   And when you needed to retrieve a

16 specific piece of information, based on any kind of

17 criteria, it could be made immediately available to you

18 in a way that was intuitive, easy access, easy to

19 understand, so -- and the various things like indexing

20 and thumbnails and icons and all those other things were

21 just tools that we would use to accomplish that ultimate

22 goal.

23   QUESTION: Well, in operation, the

24 Scopeware application utilized the Microsoft operating

25 system, correct?

2   systems we used, yes; that's correct.

3   QUESTION: And Scope -- just the simple

4   use of the Scopeware application did not ensure that the

5   users would not store and save their documents in the

6   traditional hierarchy system of files and folders in the

7   Microsoft operating system, correct?

8   ANSWER: That is correct. That's

9   correct. The users could save things as they had before

10 and after the use of Scopeware. We do not force them

11 not to do that.

12   QUESTION: And when you mentioned that

13 the Scopeware product allowed for certain searching --

14   ANSWER: Uh-huh.

15   QUESTION: -- and retrieving of

16 documents, you -- Scopeware could only do so if those

17 documents were indexed utilizing the third-party

18 software that was included within Scopeware, correct?

19   ANSWER: That's right.

20   QUESTION: So all of the documents that

21 existed on a computer or that were created on other

22 computers and sent to a computer --

23   ANSWER: Uh-huh.

24   QUESTION: -- if they weren't indexed at

25 some point utilizing the third-party software that

2 would have no ability to search for those documents,

3 right?

4   ANSWER: That is correct.

5   QUESTION: Let me direct your attention

6 to the top of Page 2 of Mr. Weil's obituary memorandum.

7   And it states: In short, after six years

8 and close to 20 million in funding, the ideas advanced

9 by Mirror Worlds have failed to gain any significant

10 attraction in the marketplace either through

11 partnerships or direct distribution.

12   Do you see that?

13   ANSWER: Yes, sir.

14   QUESTION: There's nothing in there that

15 you disagree with, correct?

16   ANSWER: No.

17   QUESTION: So you specifically recall at

18 one of these meetings involving Apple, being in Mike's

19 office -- Mike Satow's office --

20   ANSWER: Yes.

21   QUESTION: -- using WebEx, providing a

22 PowerPoint presentation, and then doing a demo of the

23 product, right?

24   ANSWER: Yes.

25   QUESTION: How many slides were in the

 2   ANSWER: I don't remember.

 3   QUESTION: 10, 20, 30, 50?

 4   ANSWER: You know, I would suspect it's

 5   like 10.

 6   QUESTION: But you're guessing?

 7   ANSWER: I'm guessing. I know it was not

 8   long, you know.

 9   QUESTION: How long was the entire

10   conference call?

11   ANSWER: I don't remember.

12   QUESTION: You never met with anyone at

13   Apple in person, correct?

14   ANSWER: No.

15   QUESTION: To your knowledge, neither you

16   nor anyone else at Mirror Worlds ever met in person with

17   anybody from Apple to discuss anything to do with Mirror

18   Worlds, correct?

19   ANSWER: That's correct.

20   QUESTION: How long did this conference

21   call last?

22   ANSWER: I -- I don't remember.

23   QUESTION: Who else was present in that

24   office with you and Mr. Satow?

25   ANSWER: I don't -- I don't remember if

2   QUESTION: You don't remember the

3   features of the product that were demoed?

4   ANSWER: Not specifically, but I can

5   talk, if you want, about how we generally would do

6   demos.

7   QUESTION: No. I'm just interested in

8   your specific recollection of this meeting.

9   Who was on the conference call from

10 Apple?

11   ANSWER: I don't remember the -- the

12 names from the other side.

13   QUESTION: How many people spoke on the

14 Apple side during the meeting?

15   ANSWER: I -- I don't -- I don't remember

16 how many.

17   QUESTION: Did you take any notes of the

18 meeting?

19   ANSWER: I don't remember. It's

20 possible.

21   QUESTION: Did Mike take any notes of the

22 meeting?

23   ANSWER: Again, I don't know.

24   QUESTION: What questions, if any, did

25 Apple ask?

2   QUESTION: I was just asking about do you

3   have any specific recollection of any questions that

4   they asked?

5   ANSWER: No.

6   QUESTION: Do you have any specific

7   recollection of any questions that you or Mike asked to

8   Apple?

9   ANSWER: No.

10   QUESTION: Do you have any specific

11   recollection of whether the term patent or patents was

12   even mentioned during this meeting?

13   ANSWER: I have a specific recollection

14   that we, in the context of all these kinds of meetings,

15   would reference that we had a patent on what we were

16   doing.

17   QUESTION: Again, I am not interested in

18   what you generally would do. I'm interested in your

19   specific recollection of this meeting, and that's what

20   I'm entitled to here.

21   Do you specifically recall one way or the

22   other whether the words patent or patents were mentioned

23   or to the effect were mentioned during this meeting?

24   ANSWER: I would -- I would say -- I

25   would say --

2   ANSWER: I would say yes.

3   QUESTION: When you say I would say yes,

4   you are assuming that that was mentioned, correct?

5   ANSWER: I'm telling you my specific

6   recollection is that at that meeting, we would -- we did

7   everything we normally do at those kinds of meetings,

8   and part of that was talking about our patent.

9   QUESTION: Sir, I'm not asking you what

10   you normally did and that you assume that you followed

11   normal procedure. I'm not asking that.

12   ANSWER: Yes.

13   QUESTION: I don't want -- I don't want

14   you to tell me who it would have been. Did you -- did

15   you --

16   ANSWER: I -- I do not remember uttering

17   the word patent.

18   QUESTION: Okay. And you don't

19   specifically recall Mr. Satow mentioning patents either,

20   do you?

21   ANSWER: No.

22   QUESTION: Okay. So you don't

23   specifically recall either yourself or Mr. Satow

24   mentioning Mirror Worlds' patents, right?

25   ANSWER: No.

2 recollection sitting here today of the -- of the words

3 patents or to those -- to that effect, listed in the

4 PowerPoint, correct?

5   ANSWER: The PowerPoints we give at those

6 meetings always said patent. That's my recollection,

7 you know.

8   QUESTION: Again, I'm not -- I'm not

9 interested in what you usually did and whether you --

10 you think you may have followed that procedure in this

11 instance.

12   I asked you earlier if you could recall

13 how many pages were in the PowerPoint, and you couldn't,

14 correct?

15   ANSWER: Correct.

16   QUESTION: And you're not going to tell

17 me that now under oath that you can specifically recall

18 that PowerPoint that was displayed to Apple --

19   ANSWER: Right.

20   QUESTION: -- mentioning patents, right?

21   ANSWER: Right. Correct.

22   QUESTION: Mr. Prager, when was this

23 conference call with Apple?

24   ANSWER: I believe it was like either

25 September -- it was in the fall, maybe September,

2   QUESTION: What year?

3   ANSWER: I -- I don't remember exactly.

4 Maybe 2000, 2001, or 2002. I don't remember. I do

5 remember it was the fall.

6   QUESTION: You worked at Mirror Worlds

7 from 2000 to 2002.

8   ANSWER: Right.

9   QUESTION: Can you give me any better

10 timeframe than that?

11   ANSWER: I -- I -- it was 2 -- I don't

12 remember. I'm sorry.

13   QUESTION: All right.

14   ANSWER: I don't remember.

15   QUESTION: That's fine.

16   Do you recall during the meeting Apple

17 mentioning that they had existing indexing and search

18 capability?

19   ANSWER: I don't recall that. I don't

20 recall that.

21   QUESTION: Was there any purpose that you

22 can recall --

23   ANSWER: Uh-huh.

24   QUESTION: -- to this call with Apple,

25 other than to try to attempt to sell them Lifestreams

2   ANSWER: No. We were just trying to sell

3   our technology.

4   QUESTION: All right. That was the sole

5   and exclusive purpose of the call?

6   ANSWER: Yeah, yeah. We wanted to do a

7   deal with as many people as we could and get money out

8   of the company, yeah.

9   QUESTION: You mentioned another meeting

10 with Apple wherein Mirror Worlds attempted to sell

11 Lifestreams to Apple, correct? You said there were two

12 meetings?

13   ANSWER: Yeah. Yeah. I think there

14 is -- again, my recollection is there was a second

15 meeting where it was, I believe, just me on the phone

16 with one or more of folks at Apple. I don't remember

17 specifics other than I believe it was just about more

18 along technology lines.

19   QUESTION: So when you say that there

20 were two meetings, there were actually two conference

21 calls, right?

22   ANSWER: Yes, right. Yeah, sure.

23   QUESTION: Okay. So you've described the

24 first conference call. When -- when in relation to the

25 first conference call did the second conference call

2   ANSWER: I believe it was a couple of

3 weeks after.

4   QUESTION: How long did this second

5 conference call last?

6   ANSWER: I don't remember. I don't

7 remember it being long.

8   QUESTION: Who was on it from Mirror

9 Worlds' side?

10   ANSWER: I believe it was just me.

11   QUESTION: And that was a follow-up to

12 Mirror Worlds' efforts to sell Lifestreams applications

13 to Apple? Yes?

14   ANSWER: It was a follow-up to the

15 original meeting.

16   QUESTION: Where were you physically when

17 you had that call?

18   ANSWER: In my office.

19   QUESTION: Did you make the call, or did

20 you receive the call?

21   ANSWER: I don't remember.

22   QUESTION: Do you recall, during this

23 second conference call, that Mr. Lindsay explained that

24 Apple had existing indexing and search capabilities?

25   ANSWER: I -- I don't -- I don't recall

 2   QUESTION: Prior to Mirror Worlds'

 3 efforts to sell Apple Lifestreams applications, what

 4 efforts, if any, did Mirror Worlds undertake to learn

 5 what existing indexing and search capabilities Apple's

 6 operating system or other applications already had?

 7   ANSWER: My -- my focus and a lot of what

 8 we would do in prep for these meetings had less to

 9 do with -- to be honest, I didn't care whether or not

10 they had index and search.

11   To me, that was not a core component. It

12 was necessary, but for me, the real important stuff was

13 like the visual interface and stream concept.

14   So I often didn't focus that much on

15 whether or not those systems had indexing and search.

16 I -- I remember when Microsoft came out, I think it was

17 in -- in Windows 2000, a later operating system, they

18 did have indexing. It was good news for me. I liked

19 it. We didn't have to bundle in a third-party product

20 at that point.

21   QUESTION: What specifically did you say

22 during this second call with Mr. Lindsay?

23   ANSWER: I -- I can't recall

24 specifically.

25   QUESTION: What specifically did

2   ANSWER: I can't recall specifically.

3   QUESTION: What generally did you say and

4   what generally did Mr. Lindsay say, if you can recall?

5   ANSWER: Yeah. You mean generally?

6   QUESTION: I don't want you guess or

7   speculate or assume. I want you to do it based on

8   your -- on your independent and specific recollection.

9   ANSWER: Specifically, I don't recall

10 anything.

11   QUESTION: Do you recall generally what

12 you said and what he said?

13   ANSWER: Other than generally, the call

14 was about technology. That would -- that would be it.

15   QUESTION: Okay.

16   ANSWER: I definitely remember that they

17 did not move ahead with us. I'm not sure why or -- you

18 know.

19   MR. RANDALL: I'll mark for

20 identification as Exhibit 14 an e-mail exchange between

21 Mr. Lindsay and Mr. Prager, dated October 24, 2001, and

22 Mr. Prager's response on the same date.

23   QUESTION: I'm showing you an e-mail

24 string between you and Mr. Lindsay, Mr. Prager.

25   ANSWER: Okay.

2 bottom of the first page?

3   ANSWER: Yep.

4   QUESTION: It is from Mr. Lindsay to you,

5 dated October 24, 2001. And it's regarding Mirror

6 Worlds' follow-up.

7   Do you see that?

8   ANSWER: Yes, I've got it.

9   QUESTION: Did you receive this e-mail

10 from Mr. Lindsay on or about October 24, 2001?

11   ANSWER: Yes.

12   QUESTION: And he states -- Mr. Lindsay

13 states to you: Hi, Randy. After some discussion, we

14 have decided to not pursue this further. We are going

15 to continue to refine our existing index and file

16 searching technologies.

17   Do you see that?

18   ANSWER: Yep, I've got it.

19   QUESTION: Does that refresh your

20 recollection that, in fact, Apple did inform Mirror

21 Worlds that one of the reasons why it was not going to

22 pursue the discussions with Mirror Worlds any further

23 regarding Lifestreams was because Apple was going to

24 continue to refine their existing indexing and file

25 searching technologies?

2   QUESTION: And you wrote back on the same

3 day, shortly thereafter to Mr. Lindsay and said: Sounds

4 good. If there's anything you wish to inquire about the

5 future, please don't hesitate to call.

6   Right?

7   ANSWER: Yes.

8   QUESTION: Other than these two calls

9 that you've already described and this e-mail exchange,

10 do you recall any other communications between Apple and

11 Mirror Worlds?

12   ANSWER: No.

13   QUESTION: And other than what you've

14 testified, is there any other information relating to

15 those calls or any communications between Apple and

16 Mirror Worlds that you haven't already provided

17 testimony on?

18   ANSWER: No.

19   QUESTION: Or described?

20   ANSWER: No.

21   QUESTION: Have we exhausted your memory

22 with respect to these communications, sir?

23   ANSWER: Yes, sir.

24   MR. RANDALL: I'll mark for

25 identification as Exhibit 16 an e-mail string consisting

2 starting at 8615.

3   QUESTION: Third paragraph, Mr. Gelernter

4 discusses the slide show problem.

5   Do you see that?

6   ANSWER: Yes.

7   QUESTION: And he states: I want the

8 slides laid out in a stream for the usual reasons.

9 Foreshortened display is a natural visual shorthand.

10 Lets me see a lot in a little space. Browse works

11 right. Search lets me find what I want, but in the

12 mainstream, slides are mixed up in random order. I may

13 develop Slide 1 last, Slide 50 first.

14   Do you see that?

15   ANSWER: Yes, got it. Yes.

16   QUESTION: And then he goes on to state

17 two paragraphs down from there: This is the way to

18 store online portions in stream format. A course,

19 series of lectures, assignments, et cetera wants to be a

20 stream but a logical and not chronological one. Huge

21 topic.

22   You see that?

23   ANSWER: Yep.

24   QUESTION: What's the problem with the

25 implementation of the mainstream that Mr. Gelernter's

  2   ANSWER: It -- it seems to me he's

  3 contemplating the problem of showing the stream in a

  4 time -- time series.

  5   QUESTION: And specifically, what he's

  6 referring to is that if you create a set of slides out

  7 of order --

  8   ANSWER: Uh-huh.

  9   QUESTION: -- that they're going to be

 10 stored out of order in the mainstream, right?

 11   ANSWER: Yeah.

 12   QUESTION: And that if you have a slide

 13 show or a series of lectures, assignments, expense

 14 reports that are created in a different order --

 15   ANSWER: Uh-huh.

 16   QUESTION: -- then that's going to appear

 17 in the mainstream. It will not be a logical

 18 representation of the documents, correct?

 19   ANSWER: Yeah.

 20   QUESTION: And he says that's a huge

 21 problem, right?

 22   ANSWER: Yeah.

 23   QUESTION: It's the last thing he says.

 24   ANSWER: Yes.

 25   QUESTION: He says: It could be a very

2 problems?

3   ANSWER: Uh-huh.

4   QUESTION: Do you see that?

5   ANSWER: Yeah, I see that.

6   QUESTION: He's trying the solve a lot of

7 problems that are created by storing documents in a

8 chronological rather than logical way, correct?

9   ANSWER: Right.

10   QUESTION: And that is a function of

11 utilizing Gelernter's mainstream concept, correct?

12   ANSWER: Uh-huh.

13   QUESTION: Is that a yes?

14   ANSWER: Yes. Yes. Sorry.

15   QUESTION: Directing your attention to

16 the next e-mail, this is also from Mr. Gelernter, dated

17 March 26, 2001. The subject is designer streams.

18   Do you see that?

19   ANSWER: Yes.

20   QUESTION: He says: Let's say you have a

21 logical instead of chronological collection; for

22 example, an address book, help system, jukebox. You

23 want the separate elements to be members of the stream.

24 No elements of a multi-part document.

25   Do you see that?

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 2                 QUESTION:  Then it goes on to state, two

 3  paragraphs down, in the last sentence:

 4                 ANSWER:  Uh-huh.

 5                 QUESTION:  We'd solve the travel form

 6  problem and the business plan problem and lots of other

 7  problems, too; e.g., the jukebox, slide show, brochure,

 8  and book problems.

 9                 Do you see that?

10                 ANSWER:  Yes.

11                 QUESTION:  He's identifying lots of

12  problems that are created by the use of his mainstream

13  concept, correct?

14                 ANSWER:  Yes.

15                 (End of video clip.)

16                 THE COURT:  All right.  I did not get

17  your time on that.  What was the total time and how was

18  it split for Mr. Prager?

19                 Excuse me?

20                 MR. RANDALL:  Mr. Prager -- again,

21  Mr. Prager was 23 minutes -- total time, 23 minutes, 50

22  seconds, and split up by Apple, 20 minutes, 29 seconds;

23  and Mirror Worlds, 3 minutes, 21 seconds.

24                 THE COURT:  All right.  Very well.

25                 All right.  Who will your next witness
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2   MR. RANDALL: Our next witness, Your

3 Honor, is Mr. Peter Lucas.

4   THE COURT: Okay. Counsel, if you will

5 approach, please.

6   (Bench conference off the record.)

7   THE COURT: I did detect an error on my

8 time for you. I'm going to put 45 minutes back on.

9   MR. RANDALL: Okay. Thank you, Your

10 Honor.

11   (Bench conference concluded.)

12   THE COURT: Has this witness been sworn?

13   MR. SOOBERT: No, he hasn't, Your Honor.

14   THE COURT: All right. Please raise your

15 right hand and repeat after me.

16   (Witness sworn.)

17   THE COURT: All right. Thank you. Be

18 seated.

19   MR. STEIN: Your Honor, we have an

20 objection to some of his testimony.

21   May I approach?

22   THE COURT: All right.

23   (Bench conference.)

24   MR. STEIN: Your Honor, Mr. Lucas will be

25 testifying to things that are outside the four corners

 2 think that's inappropriate.

 3   In addition, he was deposed after Apple's

 4 expert submitted his report in this matter, and,

 5 therefore, Apple's expert has now relied on the

 6 testimony of -- has not relied on the testimony of

 7 Mr. Lucas in his report.

 8   So our request is that, you know, if

 9 he -- if he goes beyond the four corners of the

10 references, that if he's going to be discussing that, it

11 should be excluded, and Apple's counsel should be

12 limited to that.

13   MR. SOOBERT: Your Honor, we disagree

14 with that. His testimony is relevant to a number of

15 issues. He's going to speak to the system that's in

16 public use, not just printed publications and articles.

17   It's relevant to non-infringing

18 alternatives, the scope and content of the prior art,

19 obviousness, and the like. And so he can testify -- it

20 doesn't -- we disagree with the characterization of our

21 expert's report. He certainly addresses the printed

22 publications and articles.

23   THE COURT: The objection's overruled.

24   (End of bench conference.)

25   THE COURT: Counsel approach, please.

2   THE COURT: I am making it without

3 prejudice to you raising your objection during any

4 objection in the course of his testimony, but your

5 objection is so general there's no way that I can rule

6 on it. And I think, generally, it's not well-taken, but

7 if you want to raise it on a particular item that you --

8 it's without prejudice to you doing that.

9   MR. STEIN: Thank you.

10   (Bench conference concluded.)

11   PETER ANTHONY LUCAS, Ph.D., DEFENDANTS' WITNESS, SWORN

12   DIRECT EXAMINATION

13 BY MR. SOOBERT:

14   Q   Good morning, Dr. Lucas.

15   A   Good morning.

16   Q   Can you state your full name for the record,

17 please?

18   A   Peter Anthony Lucas.

19   Q   Okay. And where do you live?

20   A   I live this Pittsburgh, Pennsylvania.

21   Q   And could you just describe your educational

22 background since high school briefly?

23   A   Yeah. I'm an educational psychologist by

24 background. I went to Penn State University as an

25 undergraduate, and I also got a master's degree there,

2   Q   Okay. And where do you work now?

3   A   At my design company --

4   Q   When --

5   A   -- that I co-founded in Pittsburgh.

6   Q   I'm sorry. When did you found that company?

7   A   Late 1989.

8   Q   1989? And you've worked there continuously

9 since that timeframe?

10   A   That's correct.

11   Q   Okay. And when you were working at MAYA

12 Design, were you -- what were some of the first early

13 projects you worked on, perhaps the first one?

14   A   Well, we founded the company on the basis of a

15 large contract that we were fortunate enough to get from

16 a company called Digital Equipment Corporation, which at

17 the time was a very large computer company.

18   And the project was called Workscape, and it

19 was in the space of office document management systems.

20   Q   Okay. And was one of the goals of that

21 project to deal with vast amounts of information on a

22 computer, you know, where users might be able to search

23 for and locate, find documents; if they have a problem,

24 where's my stuff on the computer? Is that one of the

25 focuses and goals of Workscape?

 2   The -- the -- when we did our initial research

 3   for Digital -- and this was at a time when people were

 4   just starting to -- to figure out how to use computers

 5   productively in the office.

 6   And we -- we studied a lot of offices, and we

 7   discovered that people were having a real -- real

 8   problem organizing information, because it was coming in

 9   in many different forms. There were faxes; there were

10   spreadsheets; there were e-mails; there were scanned

11   documents.

12   And the goal of Workscape was to design a

13   single user interface that would allow ordinary office

14   workers to -- to find what they were looking for in all

15   of this mess in an efficient way.

16   Q   Okay. Now, did you publicly display or

17   present any papers, articles, videos about that system

18   in that timeframe, roughly?

19   A   Well, at first, we couldn't, because it was

20   proprietary. But then in late 1993, we were given

21   permission by -- by our client to write several papers

22   and to -- to present them at a large industry conference

23   called CHI, which stands for -- C-H-I. It stands for

24   Computer Human Interaction.

25   Q   Okay. And that was in 1994?

 2   Q   Okay. And is that a well-attended conference?

 3   Is it popular with your colleagues and other

 4 folks working in the field?

 5   A   Very much so. At least at the time, it was

 6 clearly the premiere conference. It attracted people

 7 from both industry and the academic world.

 8   And pretty much anybody who was doing serious

 9 work in that area would -- would attend or at least pay

10 attention to the -- to the proceedings of that

11 conference.

12   Q   Okay. Now, did you also apply for and

13 describe and you actually obtained a patent on the

14 features that were in the Workscape system?

15   A   A number of patents. In fact, I think

16 ultimately eleven were issued about the Workscape work.

17   MR. SOOBERT: Diane, can you bring up

18 DX175, please? Just blow up that top there.

19   Q   (By Mr. Soobert) Is this one of your patents,

20 Dr. Lucas, one of the eleven you mentioned?

21   A   Yes, it is.

22   Q   Okay. And this patent right here is known as

23 the '330 patent, the last three digits of the patent?

24   A   Yes. Yes.

25   Q   Okay. And it was filed in September of 1993?

2   Q   Okay. And issued in 1996, March of 1996,

3   right?

4   A   Yep.

5   Q   All right. Let's go back to the -- this --

6   you know, the early 1990 timeframe when you were working

7   on this patent application and presenting these papers

8   publicly about the Workscape system.

9   I want to focus on some of the videos that

10 were displayed in that time.

11   MR. SOOBERT: Diane, can you play Clip

12 DX135?

13   (Video playing.)

14   (Video stopped.)

15   Q   (By Mr. Soobert) Okay. Now, Dr. Lucas, is

16 that one of the videos that was publicly displayed at

17 the CHI '94 conference in 1994?

18   A   It was a section, an excerpt from one of

19 those -- from that video, yes.

20   Q   Okay. So there's a -- this is an excerpt of a

21 much longer video that includes additional features

22 about the system as well?

23   A   That's correct.

24   Q   Okay. And now, we saw on that video the -- a

25 number of demonstrations of features, including these

2 on the -- on the screen; is that right?

3   A   Correct.

4   Q   Okay. Now, those document representations,

5 those -- those appeared to me to be receding into the

6 screen and actually foreshortened in the sense that

7 they're getting smaller; is that correct?

8   A   Yes. The -- one of -- one of the main ideas

9 of Workscape was to use the third dimension of the

10 screen as a place so that we could locate and visualize

11 larger numbers of documents.

12   Q   Okay. And so you had an expertise in MAYA --

13 in the MAYA group and this project of, you know,

14 creating these types of 3-D images in piles like that;

15 is that right?

16   A   That's correct.

17   Q   Okay. And could I put these document

18 representations, all the documents in the system, if I

19 wanted to, in a single, you know, stack or stream on the

20 screen?

21   A   Yes, you can.

22   Q   And was it possible to put that stack of all

23 of my documents in the system in a time-ordered stream,

24 presenting them with perhaps the oldest ones in the far

25 back that are fading way into the screen and then the

2 yet to be coming from the future in the front?

3   A   Yes. That was a very typical thing to do.

4   Q   Okay. And is that how that system operated,

5 actually?

6   A   Yes.

7   Q   Okay. And when was that software -- I know

8 the video was displayed at the conference in 1994, but

9 the software itself that's in there was before that,

10 right?

11   A   This particular demonstration that you just

12 saw was written in 1990. In fact, I specifically

13 remember I was working on it over the 4th of July

14 weekend, so it was July 1990.

15   Q   All right. And when I said all documents and

16 document representations, I mean, I was talking about

17 things like, you know, faxes and letters and various

18 document -- document types that are handled by the

19 system, like any type of diverse document. It could do

20 that, right?

21   A   Correct.

22   Q   Okay. All right.

23   MR. SOOBERT: Diane, let's play the CHI

24 video, DX922.

25   (Video playing.)

2   Q   (By Mr. Soobert) Okay. Dr. Lucas, can you

3 just explain for us again what that find tool is and

4 what it does?

5   A   The idea of tools in Workscape was that

6 different capabilities would be packaged in -- in -- in

7 objects on the screen that would perform different

8 functions.

9   The purpose of the find tool was to go out to

10 a data repository where the -- where the documents

11 themselves were stored, search by a criterion or

12 bring -- the criterion could be everything or a subset

13 of the documents, and to bring those documents in and

14 then stack them in some order, typically, but not

15 necessarily by date.

16   Q   Okay. And was one of the aspects of this

17 technology to kind of get rid of files and folders or at

18 least put them under the surface so the user didn't have

19 to worry about them and could find these things in a

20 really easy and intuitive way?

21   A   Yeah. That was a big part of the initial goal

22 that I described. We wanted to not bother the user with

23 all of these distinctions between file types and how

24 they were stored. Everything was presented to the user

25 just in the form of -- of a document, and it didn't

2   Q   Okay. Now, let's say some of those documents,

3 or all of them, for that matter, are stored in a

4 repository, you know, some other system or a server,

5 something that stores documents, okay?

6   Are you following me?

7   A   Yes.

8   Q   Okay. Is there a possible -- was it possible

9 in Workscape to do a search of all those documents and

10 actually retrieve those documents and present them to

11 the users so I could see the entire set of documents

12 that were on that repository?

13   A   Yes.

14   Q   Okay. And how might I do that with the

15 Workscape system?

16   A   Well, that's exactly what the -- what the find

17 tool did. You could search by any criterion, including

18 what's called the wild card search, that basically is a

19 search that matched anything.

20   So if you did a wild card search on the

21 documents in a repository, you would basically get them

22 all.

23   Q   Okay. And now, let's say I returned or I

24 retrieved all those documents using the wild card

25 search, but I said, oh, gosh, I've got a lot of

 2   and filter them perhaps, you know, based on any number

 3   of criteria, like somebody who authored the document,

 4   something in the content.

 5   Could I create a sub sort of stream of those

 6   document representations?

 7   A   Yes. There was a tool -- in fact, it was

 8   the -- the capability that was prototyped in the first

 9   video that you showed where there was a date slider

10   where you -- where the user would be able to slide in

11   two little pointers to specify a period of time.

12   And what that would do is, it would

13   temporarily hide or move the subset of the documents

14   that aren't between those two dates.

15   So it made it very easy -- if the user had a

16   rough idea of when a document was created, it made it

17   very easy for the user to focus his or her

18   attention on -- on just that range of dates.

19   Q   Okay. And let's say I've created those --

20   those substreams or strands, I believe they say in your

21   patent, or stacks -- those are all the same terminology,

22   right?

23   A   Yes.

24   Q   All right. And let's say I've created those,

25   and I don't want to now start remembering where to put

2   Could the system automatically update those

3   stacks as new documents are generated or received?

4   A   Yeah.   There were a couple of ways to do that.

5   The find tool had a feature that would cause it to

6   basically do its search continuously.

7   So if a new document appeared in the

8   repository, it would automatically come in, and it would

9   be inserted in its appropriate place in the strand,

10   pushing back the other documents to make room.

11   It was also possible to write a script.

12   Workscape had a scripting language, much the way a

13   spreadsheet does, that allows the user to customize the

14   behavior.   So it would be very easy to make a script

15   that would perform functions like that automatically.

16   Q   Okay.   And the technical term or one way to

17   say that in a technical term is that those searches and

18   sub-searches were persistent?

19   A   That's right.

20   Q   Okay. All right. Now, just a couple of other

21   questions.

22   Now, could I copy a document from one

23   repository to another through the Workscape system?

24   A   Yes.   There was another one of these tools

25   that I've been describing that was called the copy tool.

2 document and drop it on the copy tool, it would make a

3 copy, another instance of that document.

4   And one of the features of the -- of the copy

5 tool was that you could -- the user could specify which

6 repository that copy was to be moved to. So,

7 effectively, you could take a document, drop it on the

8 find tool, and make a backup or archival copy of it in

9 another repository.

10   Q   Okay. So if I had a large stack or stream of

11 these documents, and I say: Okay, I want to -- from a

12 date backward, I want to archive those and automatically

13 archive them, I could do this through this process?

14   A   Sure.

15   Q   Okay. So Workscape, in that timeframe in 1994

16 and earlier in these publications, the patent and the

17 articles, could do automatic archiving, right?

18   A   Yes.

19   Q   All right. And -- and was the Workscape

20 project well known? I mean, was it -- did you receive

21 any accolades or press or commentary about it?

22   A   Well, after we published it at the CHI

23 conference, it was cited in a number of -- of other

24 important papers.

25   And one particular one that comes to mind was

2 lab at the time, cited Workscape and described it as the

3 first example of -- of a three-dimensional interface

4 under -- under direct user control.

5   So we were kind of proud of that.

6   Q   And it -- and it had time-ordered sequences

7 and chronological ordering of all those documents in

8 that system?

9   A   Yes.

10   Q   Okay.

11   MR. SOOBERT: Pass the witness.

12   THE COURT: All right.

13   Cross-examination.

14   CROSS-EXAMINATION

15 BY MR. STEIN:

16   Q   Good morning, Dr. Lucas.

17   A   Good morning.

18   Q   You mentioned earlier that -- in response to

19 Mr. Soobert's questions, that it was possible to do

20 various things in Workscape. Workscape was a general

21 scripting tool, correct?

22   A   It was a visualization tool. It contained a

23 scripting component.

24   Q   And it was possible to do all sorts of things

25 with that visual -- visualization tool, correct?

2   Q   It was meant to be general so that people

3 could take it and, you know, creatively figure out what

4 they wanted to -- what functionality they wanted and use

5 the system to create that display and functionality,

6 right?

7   A   I think a better way to say it is that it was

8 extensible; that is, it did -- had -- had a core vision,

9 this -- this arranging documents in three-dimensional

10 space, according to various criteria.

11   But we -- we were -- we knew that we didn't

12 think of everything that the user would want to do, so

13 we made it -- made it as easy as possible for the users

14 to modify the -- the -- the system for their own

15 purposes.

16   Q   So just because the tool was capable of

17 creating something doesn't mean that anybody actually

18 used the tool to create that thing, correct?

19   A   I guess that statement's true.

20   Q   And that was part of the purpose of the tool,

21 is to enable people to make different things.

22   A   If you're asking if there are -- if there are

23 things that the tool could do that no one has ever done,

24 the answer is yes.

25   Q   So when Mr. Soobert asked you if the cool

2 do this and Workscape could do that, it doesn't

3 necessarily mean that someone actually did those things

4 with Workscape, correct?

5   A   Not necessarily, but it's fair to say that

6 there were certain uses that were very central to the

7 core vision of Workscape, and so very likely, it would

8 have been used. And many of them we did in our

9 demonstrations.

10   Q   You were contacted earlier in the year by

11 Apple, correct?

12   A   Yes.

13   Q   And they asked for your help in this case,

14 right?

15   A   Correct.

16   Q   And Apple's paying you to help them in this

17 case?

18   A   They're paying my company, my normal

19 consulting rate.

20   Q   And what --

21   A   It's not going directly to me.

22   Q   And what is that rate?

23   A   I, frankly, don't know.

24   Q   Is it hundreds of dollars an hour?

25   A   Hundreds of dollars an hour, yes.

 2 weren't you, that Apple was seeking to invalidate

 3 Dr. Gelernter's patents, right?

 4   A   I became aware of it in the course of the

 5 conversation.

 6   Q   Now, isn't it true that in Workscape, that the

 7 document you see on the screen is in some ways the

 8 actual document?

 9   A   Well, technically, it's a proxy for the

10 document. The thing on the screen is just a picture.

11 The document itself is in the repository.

12   Q   That it's -- it's basically -- if it was a

13 Word document, it would be basically Word -- Word would

14 be opened in that little proxy; and if you brought it

15 up, you would see the document in Word, you know, to

16 give an example; is that right?

17   A   Not necessarily. That would be one way you

18 could implement it, but you could also interpret the

19 Word file yourself and render it -- and Workscape could

20 render it on its own. That's really an implementation

21 detail.

22   But -- but our goal -- and I want to make this

23 clear. Our goal was to keep those details as far from

24 the user's mind as possible. We wanted the user to

25 think of that document as if it was -- as if it was the

2   So if that's what you mean, the answer is yes.

3   Q   And a document only appeared once in a

4 Workscape viewer; is -- isn't that right?

5   A   Within a single workspace, that's correct, but

6 it was possible to have more than one workspace open at

7 the same time. So -- so it's yes and no.

8   Q   So within that one Workscape, it would --

9 Workscape wouldn't have the document and then another

10 visual representation of that same document, would it?

11   A   Not in the same window, but in separate

12 windows, it could.

13   Q   And one of the possibilities that Mr. Soobert

14 mentioned for Workscape was doing some type of

15 archiving. That wasn't described in any of your

16 publications, was it?

17   A   Well, certainly, I -- the -- the feature that

18 permitted you to connect simultaneously to multiple

19 repositories was -- was very key, and we talked about

20 that -- that very, very frequently, whether -- and --

21 and to me, I'm not sure what you mean by the term

22 archiving; but if it means moving an instance of a

23 document from one repository to another, then, yeah, I

24 think it was.

25   Q   When customers -- typically, users have an

2   you know, personal computer. That's not the type of

3   thing you were just talking about there, is it?

4   A   I'm not sure I see what the difference is.

5   And sometimes I think this is a kind of a philosophical

6   question, because -- and I don't mean to be repetitive,

7   but we really wanted to let our users -- to stop

8   thinking about all this nonsense about the machinery of

9   how the computer works and to just let them deal with

10   their documents.

11   But this function was the same. It was -- if

12   you want -- the reason you would want to move something

13   from one repository to another would be presumably

14   because you think it's safer that way, and you wanted to

15   make a backup.

16   So I'm not sure what distinction you're --

17   Q   There -- there was nothing described in those

18   papers as an archiving tool in that sentence, right?

19   A   I -- we probably did not use that word.

20   MR. STEIN: James, could you put up

21   PTX437?

22   Q   (By Mr. Stein) That's a copy of the patent

23   that Mr. Soobert showed you earlier, right?

24   A   Yes, it is.

25   Q   And -- and that's a patent relating to your

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 2      A    Correct.

 3              MR. STEIN:  And could you go to Figure 5

 4  of that patent?  It's probably down a few pages.

 5      Q    (By Mr. Stein) Now, up in the top, there's

 6  something called a corkscrew pile.  Do you see that?

 7      A    Yes.

 8      Q    Okay.

 9              MR. STEIN:  James, could you show

10  PTX1812?  And could you go to -- before you go there --

11      Q    (By Mr. Stein) Up in the corner, that's --

12  that's another one of your patents, right, even though

13  your name is misspelled, correct?

14      A    Yes, it is.

15      Q    And it's another patent on your Workscape

16  work?

17      A    Yes.

18              MR. STEIN:  James, can you go to Figure 5

19  of this patent?

20      Q    (By Mr. Stein) And it has that same Figure 5.

21  See that?

22      A    Yes.

23      Q    In fact, all the figures -- I don't know if

24  you remember these patents, but all the figures in this

25  patent are the same as the figures in the '330 patent.
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2   description. Do you recall that? Do you recall filing

3   patents with the same written description?

4   A   I -- this was many years ago. I don't

5   remember the details. Certainly, a lot of the

6   background text is the same, because it's describing the

7   same underlying system. But the patents, as I

8   understand it, describe different aspects -- protect

9   different aspects of -- of -- of the system.

10   Q   It could be possible that the patents have the

11   same description, but the claims at the end were

12   different, right?

13   A   The extent I understand patent law, yes.

14   Q   Okay.

15   MR. STEIN: James, could you put up

16   PTX11?

17   Well, actually, if you would go back to

18   that one for one second.

19   Q   (By Mr. Stein) So with this patent, you know,

20   the patent number is in the upper right. It ends in

21   '134. Do you see that?

22   A   Yes.

23   MR. STEIN: Okay, James. Could you go to

24   PTX11? And could you blow up like the top half?

25   Q   (By Mr. Stein) And do you see that the patent

2 '427 patent. It's one of Dr. Gelernter's patents that

3 are at issue in this case.

4   Do you see in the middle of the column on the

5 right, the patent that's highlighted there?

6   A   Yes.

7   Q   And that, actually, is a patent number of the

8 one we were just looking at. And you see it's cited on

9 the face of Dr. Gelernter's patent, right?

10   A   I can't keep these numbers in my head, but I

11 assume so.

12   Q   And that means the Patent Office considered

13 that patent in granting Dr. Gelernter's patent, right?

14   A   I really have no expertise in how the Patent

15 Office works.

16   Q   Okay.

17   MR. STEIN: No further questions.

18   THE COURT: All right. Redirect?

19   MR. SOOBERT: Just one brief question,

20 Your Honor.

21   REDIRECT EXAMINATION

22 BY MR. SOOBERT:

23   Q   Mr. Stein just showed you a patent at issue in

24 the case citing one of your patents. You had a number

25 of other articles and publications that were presented

2 here were filed, right?

3   A   Yes.

4   Q   Okay. And none of those were cited or

5 considered by the Patent Office by anything you saw from

6 Mr. Stein; is that right?

7   A   As far as I know.

8   MR. SOOBERT: Nothing further.

9   THE COURT: All right. Thank you.

10   All right. You may step down.

11   All right, Ladies and Gentlemen of the

12 Jury, we're going to take our noon recess at this time.

13 We're going to be in recess until 12:30. I think the

14 parties have arranged some good sandwiches for you in

15 there.

16   So enjoy your lunch break. Please

17 remember my instructions, and we'll reconvene at 12:30.

18   We'll be in recess.

19   COURT SECURITY OFFICER: All rise for the

20 jury.

21   (Jury out.)

22   (Lunch recess.)

23

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CERTIFICATION

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 2

 3                    I HEREBY CERTIFY that the foregoing is a

 4   true and correct transcript from the stenographic notes

 5   of the proceedings in the above-entitled matter to the

 6   best of our abilities.

 7

 8

 9   /s/_____
     SHEA SLOAN, CSR                    Date
10   Official Court Reporter
     State of Texas No.:  3081
11   Expiration Date:  12/31/10

12

13
     /s/_____
14   JUDITH WERLINGER, CSR          Date
     Deputy Official Court Reporter
15   State of Texas No.:  731
     Expiration Date  12/31/10
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